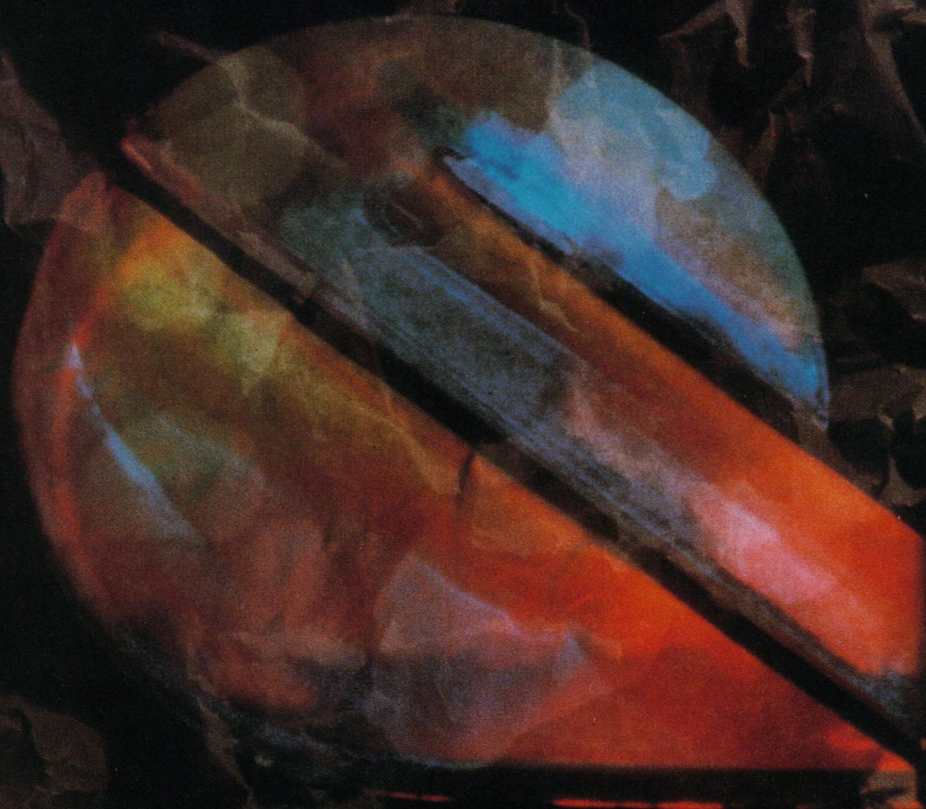


# The Care To Meet, To Know, To Understand



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## Some of the international meetings scheduled for 1991 are:

### **Progress and Perspectives in Chemoprevention of Cancer**

March 14-15 / Milan (I)  
Scientific Organization:  
U. Veronesi (I)

### **Hereditary Tumors**

April 22-24 / Florence (I)  
Scientific Organization:  
G.D. Aurbach (USA) and U. Veronesi (I)

### **2nd Int. Conference on Research Policies and Quality Assurance**

May 6-7 / Rome (I)  
Scientific Organization:  
A.E. Shamoo (USA)

### **Nutritional Aspects of Osteoporosis**

May 16-18 / Lausanne (CH)  
Scientific Organization:  
P. Burckhardt (CH) and R.P. Heaney (USA)

### **Biotechnology of Cell Regulation**

June 20-22 / Siena (I)  
Scientific Organization:  
Y. Nishizuka (J) and I. Pastan (USA)

### **Stress and Reproduction**

July 25-27 / Port Douglas (AUS)  
Scientific Organization:  
J. Funder (AUS)

### **Molecular and Cellular Biology of Reproduction**

September 9-10 / Capri (I)  
Scientific Organization:  
W. Bardin (USA) and K.J. Catt (USA)

### **A Molecular View of Steroid Biosynthesis and Metabolism**

October 14-16 / Jerusalem (IL)  
Scientific Organization:  
I. Hanukoglu (IL)

### **IL-6: Physiopathology and Clinical Potentials**

October 21-22 / Montreux (CH)  
Scientific Organization:  
M. Revel (IL)



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The System Workcenter is a shelving system for high-performance liquid chromatography, liquid chromatography, and sample preparation systems designed primarily for use with Gilson instruments. The System Workcenter can accommodate a wide range of instruments such as pumps, detectors, fraction collectors, auto-injectors, and automated sample preparation instruments. Accessories include a solvent shelf, accessory mounting assemblies, and a power module. Shelves and vertical supports are anodized aluminum held together with stainless steel screws for resistance to corrosion from spills. Gilson Medical Electronics. Circle 474.

### ***Messenger RNA Purification Technique***

Dynabeads magnetic separation technology offers rapid isolation of mRNA directly from solid tissues, cell lines, and plants. Dynabeads Oligo(dT)<sub>25</sub> enables one to isolate pure cytoplasmic mRNA from cell suspensions within 15 min. The procedure can be used for Northern blotting and the purified mRNA can be used directly for cDNA synthesis. More than 90% of the mRNA can be recovered, and the speed of the reaction reduces the risk of physical and enzymatic degradation. Dynal. Circle 477.

### ***Automated DNA and RNA Isolator***

The AutoGen 540 is a benchtop unit designed to automate the rapid isolation of plasmids, cosmids, phage DNA, genomic DNA, and RNA from bacterial cultures, tissue suspensions, blood, and plant cell preparations. The microprocessor-controlled system integrates a patented chemistry with reagent delivery, a robotic pipette mecha-

nism, and an integral centrifuge module. AutoGen supplies all the consumables: centrifuge tubes, pipette tips, and reagents. Prepackaged reagents attach directly to the instrument. Up to 12 biological samples can be processed simultaneously in cycle times of less than 40 min. The AutoGen 540 can be used in genetic engineering; DNA sequencing, mapping, and analysis; and DNA-probe diagnostics. AutoGen. Circle 504.

### ***Integrator with Data-Handling Capability***

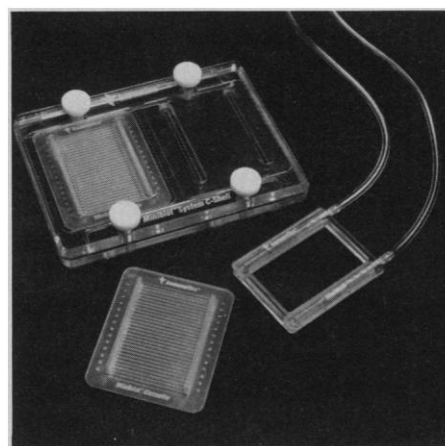
The HP 3396 Series II integrator extends the data-handling performance of its predecessor for the same price. New features include post-run baseline plotting with drawn-in baselines for automatic graphic representation of integration results, batch reprocessing for automating data reduction and reporting, and calibration curve plotting for visual display of detector response. Software packages are available that customize the integrator in such a way as to enable automation of Hewlett-Packard gas and liquid chromatographs. Hewlett-Packard. Circle 478.

### ***Nonisotopic Oligonucleotide Labeling Kits***

E-LINK and E-LINK PLUS are kits that provide all the reagents to covalently label two oligonucleotides with alkaline phosphatase. The E-LINK PLUS kit contains a highly sensitive chemiluminescent substrate that produces a signal on x-ray film. The E-LINK kit allows users to choose their substrate. The procedures take about 1 hour, including a simple chromatographic step based on the use of a prepacked column provided in the kit. Cambridge Research Biochemicals. Circle 480.

### ***Protein Immunoblotting Instrument***

The MINIBLOT System for protein immunoblot incubations features disposable cassettes for screening up to 28 separate antibody samples on a single blot. The use of disposable cassettes prevents carry-over from one assay to another and ensures reproducible results. Operator contact with potentially hazardous serum reduced as sera are completely contained within the cassette channels. The entire membrane is placed in the unit instead of being cut into strips, as in conventional protein immunoblotting procedures. Samples are loaded via entry ports



into separate channels of the cassette, and a simple sealing system converts each channel on a mini-incubation chamber. Only 50  $\mu$ l of antibody solution are required per test, enabling the user to screen samples such as hybridoma supernatants or dried blood spots. Immunetics. Circle 503.

### ***Synthetic HIV Peptides***

A comprehensive line of human immunodeficiency virus type-1 (HIV-1) synthetic peptides includes more than 200 references representing nearly the entire genome of HIV-1. Simian immunodeficiency virus peptides are also available. The peptides are useful for antibody production, enzyme-linked immunosorbent assays, and monoclonal antibody mapping. American BioTechnologies and Neosystem Laboratoire. Circle 509.

### ***Literature***

*Polyclonal Immunoconjugates and Cytochemical Grade IGG(7S) Reagents to Mouse Proteins* is a newsletter that covers new developments in immunochemistry. Nordic Immunological Laboratories. Circle 499.

*Analytical Services for Glycosylation Studies* is a brochure that describes customized analyses and three standard analytical services: monosaccharide composition analysis, oligosaccharide profile analysis, and oligosaccharide structure analysis. Oxford GlycoSystems. Circle 500.

*TurboVap Automated Evaporation Workstation* is a brochure that describes an alternative to conventional evaporation methods. It provides an explanation and diagram for the patented technology behind the TurboVap, which automatically and independently controls the evaporation of up to six samples, performs an optional solvent exchange, and stops the evaporation process at a present end point. Zymark Corp. Circle 501.

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.

# Personnel Placement

**SCIENCE** publishes each Friday, except the last Friday of the year, and is mailed on issue date. Personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference. **SCIENCE** reserves the right, in its discretion, to decline to publish advertisements submitted to it.

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**DEADLINE:** Thursday, 10 a.m., 2 weeks prior to issue date. Advertising is accepted only in writing.

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**RATE:** \$41 per line, \$410 minimum, per week. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces per line. No charge for use of blind box number. No agency commission for ads less than 40 lines. To ESTIMATE ad cost, structure ad copy on a 52-character line; include any desired heading on 32-character lines. Each line of heading, one line of white space between heading and body of ad, and all partial lines (including centered reply information, if desired) are counted as full lines. Multiply total number of lines x \$41 = approximate cost of ad, per week. (This is an approximate cost ONLY. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment. **SCIENCE** cannot provide proofs of typeset ads.)

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FAX: 202-682-0816

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Applicants should read Positions Open ads carefully in order to submit all required material when responding, and should especially check for any stated deadline for receipt of applications. **SCIENCE** encourages applicants for positions to investigate employment laws, non-discrimination policies, visa requirements, and cultural differences in the country advertising for employees.

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## POSITIONS OPEN

### ANATOMIST

The Department of Biomedical Sciences (Division of Anatomy and Experimental Morphology) at McMaster University invites applications for a tenure-track position in anatomy. Applicants should have a Ph.D. or equivalent experience. They should also have independent research interests and will be expected to qualify for research support from external agencies. Excellent opportunities for collaborative research exist within the Faculty of Health Sciences' unique matrix structure. Ability to teach gross anatomy and participation in the graduate program are essential. Rank is open and salary will be commensurate with qualifications and experience.

Applications, including curriculum vitae and names of three referees, should be sent by 15 November 1990, to: **Dr. A. J. McComas, Chair, Department of Biomedical Sciences, McMaster University, 1200 Main Street West, Hamilton, Ontario L8N 3Z5, Canada.**

*In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.*

**ASSISTANT PROFESSOR OF BIOSTATISTICS.** School of Public Health, University of Minnesota. Tenure-track assistant professor position in biostatistics to begin summer or fall of 1991. A Ph.D. degree or equivalent in biostatistics, statistics, or a closely related field is required. Send letter of interest, curriculum vitae, and names of three references by 14 January 1991 to: **Chap T Le, Ph.D., Professor, Box 197 UMHC, University of Minnesota, Minneapolis, MN 55455. Telephone: 612-624-9963. The University of Minnesota is an Equal Opportunity Educator and Employer and encourages applications from women and minorities.**

The Department of Chemistry of The University of Chicago invites applications from outstanding individuals for **ASSISTANT PROFESSOR** (tenure-track) faculty positions in inorganic, organic, physical, and polymer chemistry. Postdoctoral experience is preferred. Applicants should submit curriculum vitae, a list of publications, a succinct outline of their research plans and should arrange for three letters of recommendation to be sent to: **Graham R. Fleming, Chairman, Department of Chemistry, The University of Chicago, 5735 South Ellis Avenue, Chicago, IL 60637. An Equal Opportunity/Affirmative Action Employer.**

### ASSISTANT PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology of the University of Illinois College of Medicine seeks applications from highly qualified scientists capable of establishing independent research programs and collaborative ties with ongoing research. The appointment will be for a tenure-track assistant professor. Minimal qualifications include a Ph.D. and/or M.D. degree with a strong track record in research. Ongoing research programs are focused on cardiovascular, biochemical, and neuropharmacology problems with a cellular and molecular emphasis. Duties will include instruction to medical, dental, and graduate students. Send curriculum vitae and the names of four evaluators to: **Pharmacology Search Committee, Department of Pharmacology, University of Illinois College of Medicine, 835 South Wolcott, Chicago, IL 60612. For full consideration, apply by 9 November 1990. The University of Illinois is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.**

**CHEMICAL/ENVIRONMENTAL SIGNAL TRANSDUCTION ASSISTANT PROFESSOR.** The Department of Biological Sciences invites applications for a tenure-track position in cellular mechanisms of environmental signal transduction. Applicants in all areas of environmental signal transduction are encouraged, but the department has particular interests in molecular and/or electrophysiological responses to external signals in marine organisms. The successful candidate will be expected to establish an active, externally funded research program and to participate in graduate and undergraduate instruction. Ph.D. and postdoctoral experience are required. Generous start-up funds and competitive salaries are offered. Applications, including curriculum vitae, a statement of research interests, reprints of three selected publications, and letters from three references, should be sent by 15 November 1990 to: **Signal Transduction Search, Department of Biological Sciences, University of South Carolina, Columbia, SC 29208. Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### ASSISTANT PROFESSOR MOLECULAR GENETICS UNIVERSITY OF ILLINOIS AT CHICAGO

The Laboratory for Molecular Biology of the Department of Biological Sciences invites applications for a tenure-track faculty position at the level of assistant professor available fall of 1991. The laboratory is interested in further expanding its strong molecular genetics research group. Outstanding candidates with promising research programs utilizing molecular and/or genetic approaches to modern cellular or developmental problems will be considered. Successful candidates are expected to have a Ph.D. or M.D. degree with postdoctoral experience, and to provide evidence that they can pursue a vigorous, independent research program, and contribute to the department's teaching program. Please apply before 15 November 1990 by sending curriculum vitae, description of research interests, and names and addresses of three references to:

**Molecular Genetics Search Committee**  
c/o Dr. Sidney B. Simpson, Jr., Head  
Department of Biological Sciences (M/C 066)  
University of Illinois at Chicago (UIC)  
P.O. Box 4348, Chicago, IL 60680

*UIC is an Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT PROFESSOR OF ORGANIC CHEMISTRY.** Tenure-track opening for an assistant professor beginning August 1991. Requires doctorate. Postdoctoral experience is preferred. Applicants from all branches of organic chemistry are encouraged to apply. Send curriculum vitae, publication list, description of research interests, and academic transcripts, and arrange for submission of three letters of recommendation to: **Professor Pat Dussault, Search Committee Chair, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0304. Consideration of candidates will begin 26 October 1990. Affirmative Action/Equal Opportunity Employer.**

### DEPARTMENT OF BIOLOGICAL SCIENCES FORDHAM UNIVERSITY

Individuals are invited to apply for tenure-track positions available as early as January 1991 at the **ASSISTANT PROFESSOR** level. Candidates should possess expertise in ecology or conservation biology. Preference will be given to individuals with postdoctoral experience. Successful applicants will be expected to establish a research program and participate in teaching at the graduate and undergraduate levels. Please submit curriculum vitae, a statement of research goals, and the names and addresses of three references to: **Dr. Berish Y. Rubin, Chairman, Department of Biological Sciences, Fordham University, Bronx, NY 10458.**

**ASSISTANT PROFESSORS.** The Department of Physiology invites applications for two assistant professor positions (tenure track). Ph.D. degree or equivalent with 3 years of postdoctoral training. Candidates who plan to develop an independent research program in cellular, molecular, or biophysical aspects of motility-contraction or membrane biology are especially encouraged to apply. However, excellent candidates in all areas of cell physiology will be given serious consideration. Applicants should submit curriculum vitae and a brief statement of research plans and have three letters of reference sent to: **James T. Stull, Ph.D., Department of Physiology, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9040. An Affirmative Action/Equal Opportunity Employer.**

### ORTHOPAEDIC BIOENGINEER ASSISTANT PROFESSOR

The Department of Orthopaedic Surgery is seeking applications for a tenure-track assistant professor with at least 3 years of postdoctoral research experience to direct the Musculoskeletal Research Laboratory. Candidates should have a funded research program in skeletal biology with expertise in bone mechanics, mechanically related bone remodeling, and/or bone histomorphometry. Experience with instrumentation and finite element modeling desirable. Submit curriculum vitae and names of three referees to: **G. Paul DeRosa, M.D., Chairman, Department of Orthopaedic Surgery, CL 600, Indiana University School of Medicine, Indianapolis, IN 46202-5111. Application deadline is 1 November 1990. Affirmative Action/Equal Opportunity Employer, M/F.**

## POSITIONS OPEN

**ASSISTANT PROFESSOR OF BIOLOGY.** Applications are invited for a tenure-track position to begin September 1991. Preference will be given to candidates with expertise in the molecular biology of prokaryotes. Teaching responsibilities will include genetics, at least one advanced course in area of specialization, and participation in cell biology. Kalamazoo College is an excellent private liberal arts college that takes pride in the quality of its science program. High-quality teaching is of very high priority as is a research program that can engage undergraduates. Ph.D. required. Send letter of application, curriculum vitae, transcripts, statement of teaching and research interests, and three letters of recommendation to: **Dr. Carolyn R. Newton, Department of Biology, Kalamazoo College, Kalamazoo, MI 49007.** Review of applications will begin 1 November 1990. *Affirmative Action/Equal Opportunity Employer. Kalamazoo College is committed to diversity and particularly encourages women and minorities to apply.*

Department of Pharmacology, University of California, San Diego, seeks individual for tenure-track position at **ASSISTANT PROFESSOR** level, salary based on University of California pay scale. Should have Ph.D. or M.D. degree, postdoctoral experience, potential for independent research at cellular and molecular level, and interest in graduate and medical student teaching. Submit curriculum vitae, names of three references, and description of research plans to: **Department of Pharmacology Search Committee, 0636, University of California, San Diego, La Jolla, CA 92093-0636.** Closing date: 15 November 1990. *Affirmative Action/Equal Opportunity Employer.*

**BIOPSYCHOLOGY/BEHAVIORAL NEUROSCIENCE.** State University of New York (SUNY) at Stony Brook. The Psychology Department anticipates a position for an **ASSISTANT PROFESSOR** for September 1991. Applicants should be prepared to mount a coherent and productive research program. Stony Brook provides very competitive salaries, exceptional research space and technical support, and a relaxed seaside environment 60 miles from Manhattan. Application deadline is 15 November 1990. Send curriculum vitae and at least four letters of support to: **Biopsychology Search Committee, Department of Psychology, SUNY at Stony Brook, Stony Brook, NY 11794-2500.** *SUNY is an Affirmative Action/Equal Opportunity Employer.*

### DEPARTMENT OF BIOLOGY CASE WESTERN RESERVE UNIVERSITY

A tenure-track position at the **ASSISTANT PROFESSOR** level is available in the area of

#### CELL, MOLECULAR BIOLOGY

Applicants will be considered with research interests in plant or animal systems, who have a strong commitment to research and undergraduate and graduate education. Interested persons should submit curriculum vitae plus a statement of current research interests, and have three letters of recommendation sent to: **Dr. Norman B. Rushforth, Chairman, Department of Biology, Case Western Reserve University, Cleveland, OH 44106.** *Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.*

**MICROBIOLOGIST, DIVISION OF BIOLOGICAL SCIENCES.** Candidates for this tenure-track **ASSISTANT PROFESSOR** faculty position should use prokaryotic or eukaryotic microbial systems to answer fundamental questions in biology. Areas of strong research emphasis in the division include (i) cellular, molecular, genetic, and developmental biology; (ii) population biology, ecology, and evolution; (iii) plant sciences; and (iv) neurobiology, physiology, and behavior. We offer a highly competitive salary, generous start-up package, modern research laboratory and support facilities, an active graduate program with institutional support for students and postdoctoral associates, and an interactive faculty. *We are firmly committed to fostering ethnic and racial diversity in our faculty. Applications from women and minorities are strongly encouraged.* Applicants with a Ph.D. postdoctoral research experience and a demonstrated potential for creative research should send their curriculum vitae, reprints of publications, statement of future research and teaching interests, and names, addresses, and telephone numbers of three references to: **Dr. John David, Division of Biological Sciences, 110 Tucker Hall, University of Missouri, Columbia, MO 65211.** Applications must be received by 1 February 1991 to receive full consideration.

## POSITIONS OPEN

### THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE GRADUATE PROGRAM IN IMMUNOLOGY AND THE DEPARTMENT OF MEDICINE

The Graduate Program in Immunology and the Department of Medicine invite applicants for the position of **ASSISTANT PROFESSOR.** We hope especially to consider individuals with M.D., M.D./Ph.D., or Ph.D. degrees whose scholarship is relevant to questions of the cellular and molecular biology of the immune system.

Successful candidates will receive a primary faculty appointment in the Department of Medicine and will be members of the Graduate Program in Immunology. The position offers the opportunity to teach medical students, graduate students, and fellows with strong interests in immunologic research.

Applicants should submit curriculum vitae, bibliography, a brief description of research interests, and the names of three references to:

**Dr. Douglas T. Fearon, Director  
Graduate Program in Immunology  
The Johns Hopkins University School of Medicine  
725 North Wolfe Street  
Hunterian, Room 617  
Baltimore, MD 21205**

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

### MOLECULAR GENETICS DEPARTMENT OF ZOOLOGY UNIVERSITY OF MARYLAND AT COLLEGE PARK

Applications are invited for an **ASSISTANT PROFESSOR** tenure-track position from individuals studying the biology of eukaryotes. Areas of special interest include studies on gene expression in regulatory or developmental processes. The successful candidate will be expected to attract major funding for her/his research, direct graduate student research, and participate in the graduate and undergraduate teaching programs. Send curriculum vitae, pertinent reprints, and a statement of research interests, and arrange for three letters of evaluation to: **Dr. I. Z. Ades, Department of Zoology, University of Maryland, College Park, MD 20742.** Closing date: 12 November 1990, or until a suitable candidate is found. *Women and minorities are strongly encouraged to apply. The University of Maryland is an Equal Opportunity/Affirmative Action Employer.*

### McGILL UNIVERSITY FACULTY OF MEDICINE ASSISTANT PROFESSOR DEPARTMENT OF BIOCHEMISTRY

Applications are invited for a tenure-track appointment at the **ASSISTANT PROFESSOR** level in September 1991. Applicants should have at least 2 years of postdoctoral experience and must be committed to maintaining an excellent independent research program in any area of contemporary biochemistry or molecular biology. Responsibilities also include teaching at the graduate and undergraduate levels.

Applicants should send full curriculum vitae, list of publications, a statement of research interests, and the names of three referees to: **Dr. Philip E. Branton, Chairman, Department of Biochemistry, McIntyre Medical Sciences Building, 3655 Drummond Street, Montreal, Quebec, Canada H3G 1Y6.**

*McGill University is committed to Employment Equity. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.*

### ASSISTANT PROFESSOR OF CHEMICAL EDUCATION

Seek tenure-track faculty member to establish an original and nationally competitive program in chemical education research. The area is open, although those with interests in computer-aided instruction are particularly encouraged. Submit curriculum vitae, a summary of research plans, and statement of teaching interests plus three letters of recommendations postmarked by 15 November 1990 to: **Professor Michael L. Gross, Department of Chemistry, University of Nebraska-Lincoln (UNL), Lincoln, NE 68588-0304. FAX: 402-472-3109.** The search will remain open until a suitable candidate is found. *UNL is an Affirmative Action/Equal Opportunity Employer and encourages applications from the protected classes.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR DEVELOPMENTAL BIOLOGY DUKE UNIVERSITY

Applications and nominations are invited for a tenure-track assistant professor position beginning fall 1991 in the Department of Zoology at Duke University. We are interested in candidates with high research promise in developmental biology, particularly in cellular or molecular aspects. In addition to maintaining a vigorous research program, responsibilities include teaching an undergraduate course in developmental biology and a graduate course of choice. Send curriculum vitae, description of research interests, and three letters of reference by 30 November 1990 to: **Chair, Developmental Biology Search Committee, Department of Zoology, Duke University, Durham, NC 27706.** *Duke University is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are strongly encouraged to apply.*

### ASSISTANT PROFESSOR MICROBIAL GENETICS/PATHOGENESIS

The Department of Microbiology and Immunology, University of Kentucky College of Medicine, invites applications for a tenure-track assistant professor position in the field of prokaryotic molecular genetics, especially as related to microbial pathogenesis. Strong applicants with requisite experience could be considered at the associate professor level. The position is a 12-month appointment with a competitive salary and negotiable starting date. Candidates with Ph.D./M.D. degrees must have relevant postdoctoral training, outstanding research credentials, and an interest in participating in a vigorous microbiology graduate program and in the training of medical students. M.D. candidates will have the opportunity for a joint appointment in the Infectious Diseases Division of the Department of Medicine. Excellent support will be provided for research start-up and technical assistance. Extensive core facilities include flow cytometry, macromolecular structure, transgenic and hybridoma laboratories, and a supercomputer. The Department of Microbiology and Immunology has 23 primary faculty members with a strong history of federal funding and administers an NIH training grant that provides support for graduate students and postdoctoral fellows. Applicants should submit curriculum vitae, statement of research plans, and three letters of reference to: **Donald Biek, Ph.D., Search Committee, Department of Microbiology and Immunology, University of Kentucky, Lexington, KY 40536-0084.** *The University of Kentucky is an Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR DEPARTMENT OF DEVELOPMENTAL BIOLOGY STANFORD UNIVERSITY SCHOOL OF MEDICINE

Stanford University is seeking applicants working in the field of vertebrate development for an assistant professor position within the Department of Developmental Biology. This department is located within the Beckman Center for Molecular and Genetic Medicine. The research interests of current faculty include: the generation of asymmetry in *Caulobacter*, the nature of the genetic program regulating fruiting body development in *Myxococcus*, early development in *Drosophila*, the role of nuclear genes regulating differential mitochondrial biogenesis during development, cell fate in *C. elegans*, and oncogenes in mammary tumorigenesis and their function in normal embryogenesis. The research programs draw upon a wide range of techniques and talents common to molecular genetics, biochemistry, and cell biology in the pursuit of a basic understanding of the developmental process in both invertebrate and vertebrate systems. The responsibilities of this department include the teaching of developmental biology and genetics to graduate and medical students, as well as advanced courses for students that reflect the interests of the faculty. *Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.*

Applications should include curriculum vitae, a brief statement of research objectives, and names, addresses, and telephone numbers of three references. Please send applications to: **The Developmental Biology Search Committee, c/o Leticia Chand, Beckman Center, Stanford University School of Medicine, Room B300, Stanford University, Stanford, CA 94305-5427.**





The Ohio State University Postdoctoral Fellowships beginning July 1, 1991, are available in all academic fields. Appointment is for one or two years with a stipend of \$23,000 for a twelve month appointment. An additional supplementation of up to \$500 is provided to assist with moving expenses to Columbus. A one-time \$500 allowance is also available for travel to professional meetings.

Only those Postdoctoral fellowship applications sponsored by a graduate faculty member of The Ohio State University will be considered by the Graduate School. The deadline for submittal of completed applications by a faculty member is January 7, 1991. Prospective applicants are advised to make early contact with a faculty member.

Candidates must have received the Ph.D. degree, or comparable professional degree, within the past five years. Contact a member of The Ohio State University graduate faculty or send a resume and description of your primary research interest to:

Roy A. Koenigsnecht  
Dean of the Graduate School  
The Ohio State University  
230 North Oval Mall, #250  
Columbus, Ohio 43210-1366

These materials will be forwarded to the academic department of your choice.

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## IMMUNOLOGIST

### Salary Range:

\$24,000 to \$41,796 Per Annum

Postdoctoral position available in NIH, National Institute of Allergy and Infectious Diseases, Public Health Service, Rocky Mountain Laboratories, Laboratory of Intracellular Parasites, Hamilton, Montana. Applicants must have a Ph.D. or M.D. degree with 0-3 years of postdoctoral research experience. A background in cellular immunology is required along with experience in T cell cloning to study the pathogenesis of Chlamydia trachomatis infection. Research will involve studying the pathogenesis of Chlamydia trachomatis infection and the cellular immune response to the 57kD chlamydial heatshock protein.

To Apply: Send curriculum vitae and three letters of recommendation to:

**Dr. Harlan D. Caldwell, Chief,**  
**Laboratory of Intracellular Parasites**  
**NIH/NIAID/Rocky Mountain**  
**Laboratories**  
**903 South Fourth Street**  
**Hamilton, MT 59840**

or telephone **Dr. Richard P. Morrison,**  
**406-363-3266 for further information.**

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## POSITIONS OPEN

### ASSISTANT PROFESSOR DEPARTMENT OF PHYSIOLOGY EAST TENNESSEE STATE UNIVERSITY JAMES H. QUILLEN COLLEGE OF MEDICINE

A tenure-track position at the assistant professor level is to begin 1 June 1991. Applicant must have a doctoral degree with extensive training in physiology and have two or more years of postdoctoral experience. Potential to develop and sustain a fundable, independent research program will be an important selection criterion. Area of expertise is open, but preference will be shown to applicants whose research interests apply to cellular or molecular physiology. Currently the department has six faculty members whose interests represent a wide range of cellular and systems-oriented research in the physiological sciences. There are opportunities for collaboration throughout the department and college with research groups interested in microvascular cell biology, neuroscience, membrane transport, electrophysiology, cardiovascular control, and cell and molecular biology. East Tennessee State University provides a growing research community, ample start-up funds, modest teaching loads, and a beautiful physical location. Candidates should submit curriculum vitae, names of three references, and a brief research prospectus to: **Dr. William L. Joyner, Professor and Chairman, Department of Physiology, P.O. 19,780A, East Tennessee State University, Johnson City, TN 37614.**

Screening of applicants will begin 1 November 1990. *East Tennessee State University is an Affirmative Action/Equal Opportunity Employer.*

### ANIMAL BEHAVIOR

The Department of Biology of Pomona College invites applications for a tenure-track **ASSISTANT PROFESSORSHIP** beginning fall 1991. The successful applicant will have a broad background in organismal biology with a focus on animal behavior and will teach an undergraduate course in animal behavior and at least one additional course, in a field such as evolution, vertebrate physiology, or physiological ecology. The appointee will teach one course each semester and participate in team-teaching introductory biology. He/she will be expected to establish an active research program for which start-up funds are available. Pomona College is a 4-year, selective liberal arts college that encourages undergraduate research. *We particularly welcome applications from women and minorities.* Send curriculum vitae, statements of research and teaching interests, proposing specific courses to be taught, and three letters of recommendation to: **Dr. Paulette Bierzychudek, Search Committee Chair, Department of Biology, Pomona College, Claremont, CA 91711.** To assure full consideration, applications should be received by 9 November 1990.

### DEPARTMENT OF ANATOMY COLLEGE OF MEDICINE UNIVERSITY OF SASKATCHEWAN SASKATOON, CANADA

Applications are invited for two tenure-track faculty appointments at the rank of **ASSISTANT PROFESSOR**. Applicants for both positions must have a progressive research program in any area of the anatomical sciences.

Position 1: The successful candidate will have teaching experience in medical gross anatomy and ideally neuroanatomy, and will be responsible for a clinical residency program in anatomy. Liaison with clinical departments is expected and preference will be given to clinical anatomists.

Position 2: The appointee will participate in the histology and cell biology teaching programs of the department and will be expected to actively contribute to graduate courses and training in the area of research specialty.

*In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents. The University of Saskatchewan is committed to the principles of Employment Equity.*

An application including curriculum vitae, names of three referees, and a statement of proposed research and previous teaching experience, should be submitted by 31 December 1990 to:

**Dr. G. D. Burkholder**  
**Department of Anatomy**  
**University of Saskatchewan**  
**Saskatoon, Saskatchewan, Canada S7N 0W0**

## POSITIONS OPEN

### ASSISTANT PROFESSOR ANIMAL-MICROBIAL INTERACTIONS

Tenure-track position available fall 1991 at the assistant professor level in the Department of Zoology and Physiology at Louisiana State University (LSU). Ecologist with research in animal-microbial interactions and the role of microbes in aquatic food webs preferred. Successful applicant will teach at the undergraduate and graduate levels, and is expected to establish a vigorous research program with extramural funding. Postdoctoral experience required. Send curriculum vitae, statement of research interests, and the names of three references by 15 November 1990 to: **John Fleeger, Chairman, Search Committee, Department of Zoology and Physiology, Louisiana State University, Baton Rouge, LA 70803-1725.** *LSU is an Equal Opportunity Employer.*

The Department of Environmental, Population, and Organismic Biology, University of Colorado, Boulder, seeks an individual for an **ASSISTANT PROFESSOR**, tenure-track position to establish an active research and teaching program in plant-animal interactions, including such fields as pollination biology, herbivore-plant interactions, plant-animal-microorganism interactions, or seed and fruit dispersal. Applications addressed to **Dr. Jeffery B. Mitton, EPO Biology, University of Colorado, Boulder, CO 80309-0334**, should include curriculum vitae, statement of research and teaching interests, and names of four referees. Applications must be received by 1 December 1990. Assistant professor level is preferred, but candidates at all levels will be considered. *The University of Colorado is an Equal Opportunity/Affirmative Action Employer.*

### MICROBIOLOGIST

**ASSISTANT PROFESSOR.** Tenure-track position beginning August 1991. Teaching duties include microbiology, introductory biology, and occasionally a non-majors course. Candidate may have the opportunity to develop an upper division course in his/her area of expertise. Ph.D. required, commitment to excellence in undergraduate teaching essential. Candidate is expected to develop a research program involving undergraduates. Send curriculum vitae, transcripts, reprints, and three letters of recommendation by 30 November 1990 to: **Dr. Wayne Price, Chairman, Division of Science and Math, Box 64F, University of Tampa, Tampa, FL 33606-1490.** *The University of Tampa is an Equal Opportunity/Affirmative Action Employer and encourages women and minorities to apply.*

**ASSISTANT PROFESSOR** or senior instructor-level tenure-track position available immediately for joint appointment in neurology at the Canandaigua Veterans Administration Medical Center and University of Rochester. Applicants must be Board-eligible or Board-certified in neurology and have the potential for establishing an independent research program in clinical or basic neuroscience which will complement interests of the existing members of the Neurogerontology Unit, including Alzheimer's disease and neurodegenerative disorders, growth factor and hormone regulation of neuronal plasticity, cytoskeleton assembly, neuronal plasticity, or autonomic control mechanisms. Send curriculum vitae and names of three references by January 1991 to: **Robert W. Hamill, M.D., Chief, Neurogerontology Unit, University of Rochester/Monroe Community Hospital, 435 East Henrietta Road, Rochester, NY 14620.** *Equal Opportunity Employer.*

### EVOLUTIONARY GENETICIST UNIVERSITY OF TEXAS AT ARLINGTON

The Department of Biology invites applications for a 9-month, tenure-track position in evolutionary genetics at the **ASSISTANT OR ASSOCIATE PROFESSOR** level, available September 1991. We seek a person applying quantitative methods to the evolution of natural populations of plants or animals. Teaching will include a graduate course in quantitative or population genetics. The University of Texas at Arlington is a comprehensive university of 25,000 students located in the Dallas-Fort Worth metroplex. Applicants should submit curriculum vitae, selected reprints, a statement of research and teaching goals, and names and addresses of three references by 9 November 1990 to: **Dr. Edmund D. Brodie, Jr., Chairman, Department of Biology, Box 19498, The University of Texas at Arlington, Arlington, TX 76019.** *Equal Opportunity Employer.*

## POSITIONS OPEN

Emory University: The Department of Chemistry of Emory University invites applications for a tenure-track position in **ORGANIC CHEMISTRY** at the **ASSISTANT PROFESSOR** level or higher beginning in fall 1991. Candidates in all fields of organic chemistry are encouraged to apply. The successful candidate will be expected to develop an outstanding and productive program of creative and original research. A commitment to excellence in undergraduate and graduate teaching is required. Applicants should send curriculum vitae, statement of research plans, and arrange for the submission of three letters of recommendation to: **Professor Dennis Liotta, Department of Chemistry, Emory University, Atlanta, GA 30322**. All applications will be reviewed beginning 1 November 1990. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

**CANCER CYTOGENETICIST.** Tenure-track position at the **ASSISTANT PROFESSOR** level for an individual with American Board of Medical Genetics certification in cytogenetics to direct a new tumor cytogenetics laboratory at the Eastern Virginia Medical School. The successful candidate will have skills in solid tumor chromosome preparations, molecular genetics, and an interest in developing a strong, independent research program in cancer. Opportunity exists for collaborative studies, including interactive work with established programs in both adult and pediatric cancers. Please send letter of intent and curriculum vitae with names of three references to: **Arthur R. Brothman, Ph.D., Departments of Pediatrics and Microbiology/Immunology, 700 Olney Road, Eastern Virginia Medical School, Norfolk, VA 23507.**

### ASSISTANT/ASSOCIATE PROFESSOR PHYSIOLOGY/PHARMACOLOGY

Tenure-track position available for a **CELL PHYSIOLOGIST/MOLECULAR BIOLOGIST** to enhance our university-wide research efforts in regulation of cell functions. Candidate must have doctoral degree plus two or more years of postdoctoral training. Research interest should be in an area of cell biology or molecular biology that complements our current programs in cancer pharmacology or cellular responses to inflammation/injury. Purdue University has a federally supported Cancer Center and an AIDS Research Center that foster formal and informal interactions amongst its faculty. The successful candidate is expected to have extramural research support or to develop an extramurally funded research program within a short period. Excellence in teaching will be expected, supported, and rewarded. Please send a letter describing current research interests and the names of three references, together with curriculum vitae, by 31 December 1990 to: **Chairman, Cell Physiologist Search Committee, Department of Veterinary Physiology and Pharmacology, School of Veterinary Medicine, Purdue University, West Lafayette, IN 47907.**

*Purdue University is an Equal Opportunity/Affirmative Action Employer.*

Position at the rank of **ASSISTANT OR ASSOCIATE PROFESSOR** in the Department of Biological Sciences at the University of Alaska Anchorage (UAA). The position is full time, 9 months, tenure track, and funded through the UAA biomedical program which is part of the medical education agreement between the University of Washington School of Medicine and the states of Washington, Alaska, Montana, and Idaho (WAMI). Annual teaching responsibilities are either a cell pathology or neuroscience course for first year students and one to two courses for undergraduate and graduate biology majors. The successful candidate must have a Ph.D. or M.D., postdoctoral research experience, and a strong potential to develop a research program and attract extramural funding. Research interests must complement the needs and resources of the biomedical program and should include some aspect of cell biology, molecular biology, neurobiology, immunology, or microbiology. An affiliate faculty position at the University of Washington School of Medicine is possible.

Salary: Competitive, based on experience.

Application procedure: Submit a letter of application briefly stating teaching experience in cell pathology or neuroscience and research interests, curriculum vitae, and names, addresses, and telephone/FAX numbers of three references to: **Michael J. Dimino, Ph.D., Director, Biomedical Program, University of Alaska Anchorage, 3211 Providence Drive, Anchorage, AK 99508.**

Closing date: All application materials must be received by 30 November 1990.

5 OCTOBER 1990

## DIRECTOR CELL BIOLOGY

The Upjohn Laboratories Division of The Upjohn Company, a worldwide leader in pharmaceutical research, is seeking a Director to lead our Cell Biology Research Unit as well as maintain their own active research effort. The successful candidate will be responsible for directing a multi-disciplinary research group of 30-40 scientists and staff working in several areas of cellular and molecular biology including protein export, cellular immunology, receptor biology and second messenger systems, and growth control. The focus of the department is to use cellular approaches to complement and support drug discovery programs at Upjohn.

Qualified applicants will possess:

- A Ph.D. and/or M.D. with an established record of scientific excellence as evidenced by publications and/or patents.
- Commitment to drug discovery and development.
- Administrative experience and excellent communications skills.

Upjohn offers a competitive compensation and benefits package in addition to a stimulating, multi-disciplinary research environment at our modern laboratories in Kalamazoo, Michigan. In 1989, Upjohn committed over \$400 million to research and development and is currently increasing its main research facility by 50%. Qualified and interested applicants are invited to forward their cv/resume to: **THE UPJOHN COMPANY, CORPORATE RECRUITING, KALAMAZOO, MI 49001-0199.** Refer to position number 5697-HA in your cover letter. An Equal Opportunity Employer M/F.

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## PCR DNA PROBE DIAGNOSTICS

**D**ue to continued advancement in the development of new products, Hoffmann-LaRoche's DNA probe development program is expanding, creating the following new positions:

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Will head a group responsible for the development of several infectious disease diagnostics. Experience in the development of DNA probe diagnostics and 6-10 years of industrial experience after obtaining a PhD required.

### SENIOR SCIENTISTS

Positions are in several areas: bacterial and viral infectious diseases, assay development, format development and nucleic acid chemistry. PhD or MS/BS with extensive experience required; industrial experience preferred.

### SCIENTISTS

Several opportunities with responsibility for the development of DNA probe diagnostic products. BS or MS with solid research background in one or more of the following area required: diagnostic assay development, microbiology/virology, biochemistry or molecular biology.

We offer competitive salaries commensurate with experience and education, a generous benefits package and a state-of-the-art environment where innovation and creativity are recognized. For consideration, please send your resume, indicating position/area of interest and present salary (those without this information will not be acknowledged), to: **Mrs. Eleanor M. Malone, Staffing and Employee Services, Department JL, Hoffmann-LaRoche Inc., Nutley, New Jersey 07110.** We are an equal opportunity employer.



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## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR

The Department of Cell, Molecular, and Structural Biology at Northwestern University's Medical/Dental Schools is continuing its search for primatologists and other evolutionary biologists for a full-time, tenure-track faculty position. Individuals working in the areas of molecular evolution or experimental functional anatomy are particularly encouraged to apply, although applicants investigating any aspect of mammalian evolutionary biology will be seriously considered. Application deadline: 15 November 1990. Send curriculum vitae, statement of research interests, and reprints to: **Dr. Brian Shea, CMS Biology, Northwestern University, 303 East Chicago Avenue, Chicago, IL 60611.** *Northwestern University is an Equal Opportunity/Affirmative Action Educator and Employer and invites applications from all qualified individuals. Applications from women and minorities are especially sought.*

**ASSISTANT OR ASSOCIATE PROFESSOR.** Albert Einstein College of Medicine/Montefiore Medical Center. Department of Neurosurgery and Cancer Center at Albert Einstein College of Medicine.

Assistant or associate professor level research scientist position with molecular biology/cell biology background to study the molecular biology of malignant brain tumors. Experience: Ph.D. with experience and publications in molecular biology/cell biology. Research will be based at Montefiore Medical Center. Primary appointment in neurosurgery and with an appointment in appropriate basic science department at Albert Einstein College of Medicine. Please send curriculum vitae and the names and addresses of three references to: **Paul L. Kornblith, M.D., Professor and Chairman, Department of Neurosurgery, Albert Einstein College of Medicine/Montefiore Medical Center, 111 East 210th Street, Bronx, NY 10467.**

### ASSISTANT OR ASSOCIATE PROFESSOR CELL AND MOLECULAR BIOLOGY/ BIOPHYSICS

Applications are invited for a tenure-track faculty position in the Division of Cell Biology and Biophysics. Individuals with research interests in molecular aspects of virology, immunology, microbial genetics and physiology, or macromolecular structure are encouraged to apply. The successful candidate will be expected to maintain a vigorous, extramurally funded research program that complements and extends existing programs in biomolecular structure and recognition, molecular virology, and eukaryotic and prokaryotic cell biology. Faculty in the division also participate in training Ph.D. and health science students. Please submit curriculum vitae, statement of research goals, and the names of three references to:

**Dr. George J. Thomas, Jr., Head  
Division of Cell Biology and Biophysics  
School of Basic Life Sciences  
University of Missouri-Kansas City  
Kansas City, MO 64110-2499**

Screening of applicants will begin 1 December 1990 and continue until the position has been filled. *The University of Missouri is an Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT/ASSOCIATE PROFESSOR REPRODUCTIVE BIOLOGY

Reproductive Endocrinology Center and Program in Molecular Medicine invite applicants for an assistant/associate professor position at University of California, San Francisco. Candidates should hold a Ph.D. or M.D. degree with two or more years of postdoctoral research experience. Candidates will be expected to establish and maintain an active research program in biochemical, cellular, or molecular reproductive biology. Areas of interest include hormone regulation and action, gametogenesis, fertilization, sexual differentiation, gonadal function, and oncogenesis. Opportunities are available for participation in several graduate programs via membership in the Program in Biological Sciences.

Applications, including curriculum vitae and names of three references, should be submitted to: **Richard Weiner, Ph.D., Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco, CA 94143-0556.**

*University of California is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

## POSITIONS OPEN

**ASSISTANT/ASSOCIATE PROFESSOR,** biochemistry, cell/molecular biology. Ph.D. with demonstrated research skills. Tenure-track in a new department; adequate start-up funds; competitive salary. Submit curriculum vitae, research interests, references to: **David V. Cohn, Ph.D., Department of Oral Health, Health Sciences Center, University of Louisville, Louisville, KY 40292.** *Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT/ASSOCIATE PROFESSOR, ENVIRONMENTAL TOXICOLOGY.** Applications are invited for a tenure-track position in the Department of Environmental Health Sciences at the University of South Carolina. Prerequisites include a doctoral degree and demonstrated research strength in environmental toxicology that would complement our interdisciplinary graduate program in environmental quality, hazardous materials management, industrial hygiene, and vector control. Teaching experience is desirable. Submit curriculum vitae, a statement of teaching and research interests, and the names and addresses of three references no later than 16 November 1990 to: **Dr. H. N. McKellar, Chairman of Search Committee, Department of Environmental Health Sciences, University of South Carolina, Columbia, SC 29208.** *The University of South Carolina is an Affirmative Action/Equal Opportunity Employer.*

### MOLECULAR BIOLOGY THE WICHITA STATE UNIVERSITY (WSU)

The Department of Biological Sciences is actively recruiting gifted individuals with demonstrated research and teaching skills in molecular biology for two tenure eligible positions at the ASSISTANT/ASSOCIATE PROFESSOR level. A research emphasis in genetics and/or developmental biology is preferable. Both positions require significant postdoctoral training, a record of productive research, the ability to interact collegially, and demonstrated capacity to direct a core laboratory in molecular biology. Appointment at the associate level requires a demonstrated record of funded research activity. Competitive salary with start-up funds available. Deadline for applications is 1 November 1990 or the first of the month until positions are filled. Submit curriculum vitae, summary of current and future research, and names of three references to: **Dr. K. Brown, Chair of Search Committee, Department of Biological Sciences, Campus Box 26, The Wichita State University, Wichita, KS 67208-1595.** *WSU is an Affirmative Action/Equal Opportunity Employer.*

The Department of Pathology of the University of California, San Diego (UCSD), seeks a **CYTOPATHOLOGIST** with experience in directing a Cytopathology and Flow Cytometry Service. Applicants should have a record of research, teaching of medical students and residents, and clinical activity sufficient to qualify for appointment as **ASSOCIATE PROFESSOR** of pathology in residence at UCSD. Applicants should also be either Board-certified or Board-eligible in anatomic pathology and subspecialty Board-certified or Board-eligible in cytopathology. Medical licensure in California is highly desirable. Salary will depend upon the qualifications and experience of the candidate and will be consistent with established UCSD pay scales. Interested individual should submit curriculum vitae and names of five references by 26 October 1990 to: **University of California, San Diego, David N. Bailey, M.D., Professor and Chairman, Department of Pathology, 9500 Gilman Drive, La Jolla, CA 92093-0612.** *Affirmative Action/Equal Opportunity Employer.*

### ASSOCIATE/FULL PROFESSOR ANATOMY/NEUROBIOLOGY

Anatomy/neurobiology position at the associate or full professor level available 1 July 1991. Ph.D.'s or M.D.'s working in all areas of neurobiology will be considered but preference will be given to those doing modern molecular, cellular, and systems studies related to the mammalian somatosensory system. The applicant must have a clearly demonstrated record of research productivity and success in obtaining federal funds. The successful candidate is expected to collaborate with current faculty members. Teaching responsibilities will be in medical anatomy and graduate neurobiology courses. Applicants should submit curriculum vitae, statement of research goals, and names of three references to: **Dr. P. A. Young, Chairman, Department of Anatomy and Neurobiology, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, MO 63104.** *Equal Opportunity Employer, M/F/H/V.*

## POSITIONS OPEN

Harvard University: The Department of Linguistics invites inquiries from persons qualified for appointment to a **FULL PROFESSORSHIP**. The candidate should be a theoretical linguist with a specialty in either phonology or syntax. Preference will be given to candidates with an interest in teaching in other related departments. The possibility of joint appointments exists for suitable candidates. A curriculum vitae and the names of potential referees should be sent by 30 November 1990 to: **Brendan Maher, University Hall 17, Harvard University, Cambridge, MA 02138.** *Applications from women and minorities are especially welcome. Harvard University is an Affirmative Action/Equal Opportunity Employer.*

### PROFESSOR OF TOXICOLOGY

The Department of Toxicology at the University of Maryland is seeking a tenured professor with a doctoral degree in toxicology, environmental health, or a related field with at least 10 years of experience in research and public policy teaching experience. The candidate should have a proven record of interdisciplinary work in publications, communication skills, and demonstrated expertise in research.

Please send résumé, names of three references, salary history, and salary expectations to: **Bruce A. Fowler, Ph.D., Director, Toxicology Program, University of Maryland at Baltimore, Howard Hall, Room 544, 660 West Redwood Street, Baltimore, MD 21201.** *The University of Maryland is an Equal Opportunity Educator and Employer and especially invites and encourages applications from women and minorities.*

### DANA-FARBER CANCER INSTITUTE HARVARD MEDICAL SCHOOL

Dana-Farber Cancer Institute and Harvard Medical School are seeking a **PROFESSOR** of biological chemistry and molecular pharmacology to be located at the Dana-Farber Cancer Institute. The successful candidate should be a distinguished researcher in the molecular basis of action of vitamins and hormones having relevance to child health and fetal development. We are interested in identifying a candidate conducting a basic research program using cell culture systems and animal models combined with molecular analysis to study mammalian cell differentiation and development. A representative area of interest would include the analysis of the mechanism of action of hormones and morphogens that act via nuclear receptors. The successful candidate will be expected to participate in teaching of medical and graduate students and participate in one or more of the professional training programs conducted by the Division of Medical Sciences. Administrative responsibilities will include serving on appropriate committees of the Department of Biological Chemistry and Molecular Pharmacology, the Dana-Farber Cancer Institute, and Harvard Medical School. Interested individuals should send a letter and curriculum vitae to: **Dr. Richard Kolodner, Division of Cellular and Molecular Biology, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.** *Harvard Medical School and the Dana-Farber Cancer Institute are Equal Opportunity/Affirmative Action Employers. Women and minority candidates are particularly encouraged to apply.*

The Registry of Comparative Pathology (RCP), funded by the Division of Research Resources of NIH, seeks a **CHIEF PATHOLOGIST** (D.V.M. or M.D., Board-certified), with broad interests and competence in comparative pathology. The RCP, located at the Armed Forces Institute of Pathology in Washington, D.C., serves as a center for the study of pathologic processes from a comparative point of view. It is a national resource to facilitate education and research involving spontaneous and experimentally induced disease.

The successful candidate will be a creative person who will serve as the national spokesperson for comparative pathology. She/he will have strong interests and competence in modern methods of information transfer and education in pathology. Skills in organizing collaborative projects, writing, and verbal communication are essential. Experience in grant writing and fund raising are highly desirable. *Women and minorities are encouraged to apply.* Salary and starting date are negotiable.

Applicants should submit curriculum vitae with names of three individuals to provide letters of reference by 30 November 1990 to: **Dr. Dante G. Scarpelli, Chairman of the RCP Advisory Committee, Department of Pathology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611.**



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### **Project Leader Barrier Technologies**

*This position is responsible for defining, directing and conducting research in the area of gas barrier systems for use in disposable medical and related applications. Ph.D. in Polymer Chemistry, Organic Chemistry, or a related discipline and demonstrated accomplishments by pertinent patents and/or publications is required. 4 to 8 years of increasingly responsible experience, preferably in coatings or membrane separations, is also necessary.*

### **Biophysicist Surface Science**

*This position in our Surface Science Group reports to the Senior Group Scientist and is responsible for defining and carrying out research in the area of blood/cell contact phenomena with polymer surfaces. Ph.D. in Physical Chemistry or Biophysics with demonstrated experience in blood and/or cell biochemistry and working knowledge in polymer surface chemistry is required. 2-5 years of industrial experience desirable.*

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#### **BIOCHEMISTS**

Candidates must be familiar with protein chemistry, including the purification and characterization of proteins using a number of chromatographic, spectroscopic, and electrophoretic techniques. Expertise in immunochemistry and enzymology is also preferred.

Candidates who have a familiarity with cellular biochemistry are also needed.

In addition to attractive salaries and benefits, Lilly provides unprecedented programs for continued growth. If you have a personal commitment to the future of global health care, bring your talents to Lilly. For consideration, please send a resume to:

Kristin Roehr  
Corporate Recruitment  
Eli Lilly and Company  
Lilly Corporate Center  
Indianapolis, IN 46285

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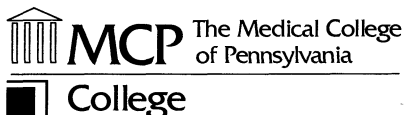
Commitment to Excellence

**THE MEDICAL COLLEGE OF  
PENNSYLVANIA  
CHAIR  
DEPARTMENT OF ANATOMY AND  
NEUROBIOLOGY**

The Medical College of Pennsylvania invites applications and nominations for the position of Chair, Department of Anatomy and Neurobiology. The department currently has ten full time Faculty members with a strong emphasis on Neuroscience research ranging from molecular to behavioral studies. The faculty is well funded and, in addition, has a NIH funded Program Project Grant on mechanisms of recovery from spinal cord injury and a funded postdoctoral program. The number of individuals, including staff, pre and postdoctoral students and faculty, totals sixty-three.

We seek a distinguished scientist and educator in cell, developmental, molecular, or neurobiology or genetics with proven ability in Administration who can lead and expand the department. The Medical College of Pennsylvania is undergoing an expansion phase of its physical facilities that will allow the potential for the addition of faculty and space to the department.

A letter of interest or nomination, curriculum vitae, and the names of at least three references should be sent by October 31, 1990 to **George L. Popky, M.D., Chair, Anatomy and Neurobiology Search Committee, Professor and Chairman, Department of Radiologic Sciences, The Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, Pennsylvania 19129.** Equal opportunity/affirmative action employer.



**DEPARTMENT OF MICROBIOLOGY  
OKLAHOMA STATE UNIVERSITY**

The newly re-organized Department of Microbiology at Oklahoma State University is rapidly expanding to offer programs in both microbiology and cellular biochemistry. To meet its teaching and research goals, the department anticipates filling two tenure-track positions initially.

The first position seeks a researcher in **ENVIRONMENTAL MICROBIOLOGY**. The successful candidate will be active in the application of molecular techniques in areas such as molecular responses to environmental stimuli/stressors, molecular basis of microbial community structure or trophic interactions, molecular evolution, or environmentally-controlled gene regulation.

The second position is in the area of **PHOTOSYNTHESIS** and may deal with topics such as structure/function of photosynthetic reaction centers, electron transport, energy coupling, transport, protein-membrane interactions, or genomic control of bioenergetics in procaryotic or eucaryotic photosynthetic systems.

These positions may be filled at either the **ASSISTANT or ASSOCIATE PROFESSOR** level with rank and salary commensurate with experience. The Ph.D. degree in microbiology, biochemistry, cell biology, or related fields is required; relevant post-doctoral experience is highly desired. The candidates will be expected to develop an independent externally-funded research program and to actively participate in the graduate programs. The candidates will also be expected to teach courses in their specialty as well as participate in the microbiology and cell biology curricula. Substantial start-up funds and newly-renovated space are available.

Applicants should send curriculum vitae, a description of research program, relevant pre-/reprints, and the names, addresses, and telephone numbers of three references by December 1, 1990 to:

Dr. H. James Harmon  
Chair, Search Committee  
Department of Microbiology  
Oklahoma State University  
Stillwater, OK 74078  
Ph. (405) 744-9692

*Equal Opportunity/Affirmative Action Employer.*



**The University  
of  
British Columbia**

**BIOTECHNOLOGY LABORATORY  
Fermentation/Process Engineering Group**

The University of British Columbia has recently initiated the Biotechnology Laboratory under the directorship of Dr. Michael Smith. Its objective is to foster an interactive approach to problems in biotechnology. Applications are invited for a tenure track appointment at the rank of **Assistant Professor**. Applicants must have a Ph.D. degree; post-doctoral experience is an asset. Substantial start-up funding will be provided. The individual appointed to the Biotechnology Laboratory will have a joint appointment with an appropriate academic Department and will teach and supervise undergraduate and/or graduate students in that Department's programs or in academic programs to be established under the aegis of the Biotechnology Laboratory. At this time, a candidate is sought with research expertise in either of the following areas of Bioprocess/Genetic Engineering:

**DOWNSTREAM PROCESSING** - Applicants should be interested in developing a research program involving novel purification methods and/or aspects of chemical engineering applied to large-scale protein recovery. Candidates with industrial experience and a strong academic background are encouraged to apply. The successful candidate would be expected to develop a teaching program bridging the biochemical and engineering disciplines related to downstream purification.

**PROTEIN/GENETIC PROCESSING** - Applicants should be experienced in the application of genetic engineering and/or biochemical principles to protein production. The successful candidate would be expected to develop an active research program in the area of protein engineering, expression and/or purification of biologically or industrially important proteins. The successful candidate would be expected to develop a teaching program bridging the genetic and biochemical engineering disciplines involved in downstream purification.

The appointment will be made starting July 1st, 1991 or as soon as possible thereafter. Closing date for applications is November 30, 1990. Salary will be commensurate with qualifications and experience. The University of British Columbia is committed to the Federal Government's employment equity program and encourages applications from all qualified individuals. In accordance with Canadian immigration requirements priority will be given to Canadian citizens and permanent residents.

Applications, including a full c.v., plans for future research (approximately 2-3 pages), and the names, addresses and phone numbers of three references, should be sent to: **Mrs. Darlene Crowe, Administration, Biotechnology Laboratory, The University of British Columbia, Room 237 - 6174 University Boulevard, Vancouver, B.C. CANADA V6T 1W5.**

# RESEARCH SCIENTISTS

Applications are invited from individuals possessing a BS or MS degree and experience with techniques in molecular biology and protein expression. The successful candidates will be required to play central roles with groups working on immunosuppression through a multi-disciplinary approach requiring the cloning and expression of natural and recombinant biological products.

The company is located in a new research facility near New Haven and Yale University, and midway between Boston and New York City. We offer competitive salaries, excellent benefits, and a stimulating and challenging work environment.

Applicants should forward a curriculum vitae along with a statement of research interest and capabilities in confidence to: **Research Director, Molecular Therapeutics, Inc., 400 Morgan Lane, West Haven, CT 06516.**

*An Equal Opportunity Employer M/F/H/V*





## Agricultural Biotechnology Research

# Scientists Biochemistry Department

CIBA-GEIGY Agricultural Division's Biotechnology Research Unit, in Research Triangle Park, NC, is a leader in genetic engineering, crop improvement and crop protection chemicals. We offer two challenging opportunities to contribute to our Biochemistry Department. Initial primary focus will be to develop assay schemes for analysis of transgenic crop plants. We seek scientists with an MS and 2+ years experience or BS and 4+ years with a concentration in one of the following areas:

### Immunology Research

Requires extensive experience in immunoassay design and development, immunoaffinity purification, hybridoma culture and production, as well as PAGE and ELISA. Skill in PCR or related molecular biology techniques preferred.

### Molecular Biology

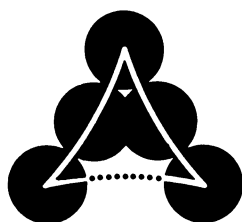
Requires extensive experience in PCR and Southern analysis. Additional experience in Northern analysis, ELISA, immunoassay design and development preferred.

If you possess either of the above qualifications, we invite you to be part of our innovative research team. We offer an excellent salary, comprehensive benefits including relocation assistance, a high level of professional visibility and career advancement potential. Please send resume including salary history, with three letters of professional reference and transcripts, indicating your area of interest, in confidence to: **Dr. Mary-Dell Chilton, CIBA-GEIGY Corporation, Agricultural Division, PO Box 12257, Research Triangle Park, NC 27709.** We Are An Equal Opportunity Employer M/F/H/V.

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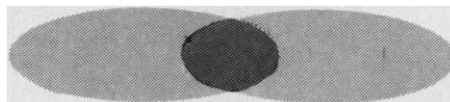
Science Serving Mankind

# CIBA-GEIGY



## TANOX BIOSYSTEMS, INC.

*Where developing talents and developing products go together.*



**T**ANOX BIOSYSTEMS, located near the Texas Medical Center in Houston, is developing immunotherapies for the treatment of allergies, AIDS, B cell cancers, and rheumatoid arthritis. We are looking for motivated, growth-minded scientists for the following positions:

### PRODUCTION CELL CULTURE SPECIALIST

**Responsibilities:** Adaptation and scale-up of hybridoma or transfectoma cell lines to achieve optimal production; production of pharmaceutical human and humanized monoclonal antibodies in pilot and commercial systems.

**Candidates:** Experience in cell culture; excellent sterile technique and mechanical aptitude to work with large-scale cell cultures; ability to work independently in multi-task, multi-project environment; even-tempered and strong goal-oriented personality; knowledge of cGMP and pharmaceutical production a plus.

### ANALYTICAL SCIENTIST

**Responsibilities:** Development and validation of analytical tests to be used for product quality control and clinical trials of pharmaceutical antibodies.

**Candidates:** Experience in immunossays, bioassays, chromatographic methods; communication skills; knowledge of cGMP.

### CELL ANALYSES SPECIALIST

**Responsibilities:** Development of diagnostic technology for enumeration of leukocyte subsets based on cell adhesion to solid-phase immunoadsorbents.

**Candidates:** Experience in immunochemistry, blood leukocytes processing; experience with cell adhesion, diagnostic instrumentation, and image analysis a plus.

*Interested individuals please send C.V. in confidence to Vice President of Administration, Tanox Biosystems, Inc., 10301 Stella Link, Houston, Texas 77025.*



## POSITIONS OPEN

### MOLECULAR GENETICS

The Wilmer Ophthalmologic Institute of The Johns Hopkins University, School of Medicine, invites applications for a full-time faculty position at the **PROFESSOR** level, to direct a newly created molecular genetics unit. The unit will occupy approximately 5500 square feet of new space, which will be finished by early summer 1991.

The successful candidate will be expected to develop a vigorous program in both basic and disease-related molecular genetics of the eye. We encourage applications from established investigators with a strong track record in these areas. Scientists with previous experience in molecular genetics studies using other systems, but who are willing to switch the emphasis of their investigations to the eye, are also encouraged to apply. The position will offer extensive opportunities for interactions with ophthalmologists and basic scientists interested in normal and pathological genetic mechanisms in the eye.

Detailed curriculum vitae, including a list of publications and current grant support, a description of current research interests, and three letters of recommendations should be addressed to:

**Ruben Adler, M.D.**  
Chairman, Search Committee  
The Johns Hopkins University School of Medicine  
The Wilmer Institute  
Maumenee 519  
600 North Wolfe Street  
Baltimore, MD 21205

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

### CHAIRPERSON

The Medical University of South Carolina (MUSC) College of Medicine is seeking qualified candidates for the position of professor and chairperson of the Department of Biochemistry and Molecular Biology.

Successful candidates must have an outstanding record of achievement in research, demonstrated leadership ability, and appreciation for and commitment to the continuing role of a department of biochemistry and molecular biology in educating both medical and graduate students. The Medical University of South Carolina is an institution of growing research capability. The resources are available at MUSC to build the Department of Biochemistry and Molecular Biology into a competitive unit of international quality.

Interested applicants should submit curriculum vitae, bibliography, and the names of four references to:

**E. Carwile LeRoy, M.D.**  
Chairman, Biochemistry Search Committee  
c/o Dean's Office  
College of Medicine, Room 612 CSB  
Medical University of South Carolina  
171 Ashley Avenue  
Charleston, SC 29425-2201

*The university is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.*

**DIRECTOR OF RESEARCH AND HIGHER EDUCATION.** The Hawk Mountain Sanctuary Association invites applications for a Ph.D. level candidate to direct the sanctuary's research program and to develop affiliations with colleges and universities for undergraduate and graduate field courses and research studies. Candidates should have strength in ornithological research, literacy with statistical software, demonstrated teaching capabilities, and the ability to work in a team setting with staff biologist and research interns. Send cover letter and résumé to: **Cynthia Lenhart, Executive Director, Hawk Mountain Sanctuary Association, Route 2, Kempton, PA 19529.**

### IVF LABORATORY DIRECTOR

Ph.D. to direct human IVF and reproductive endocrinology laboratory in an established program in Chicago. Expertise in human in vitro fertilization required, including gamete and embryo biology and tissue culture techniques. Competitive salary dependent on experience. Replies, including curriculum vitae, should be sent to:

**W. Paul Dmowski, M.D., Ph.D.**  
Director, Family Fertility Center  
Grant Hospital of Chicago  
550 West Webster Avenue  
Chicago, IL 60614

## POSITIONS OPEN



**WWF** World Wide Fund  
For Nature

### DIRECTOR OF CONSERVATION POLICY

World Wide Fund for Nature (WWF) is seeking candidates for the position of director of conservation policy. This position is based at WWF's international headquarters in Gland, Switzerland, and reports to the deputy director general, program.

The director of conservation policy will plan and direct the development of WWF's conservation policy activities. These are focused in the fields of biological diversity conservation, the sustainable use of natural resources, and reducing pollution and the wasteful consumption of resources and energy. Requirements:

- A Ph.D. in natural resource management, biological sciences, environmental law, resource economics, or a related field. Candidates with an advanced degree and equivalent work experience will also be considered.
- Extensive experience in one or more areas of natural resource policy, with demonstrated success in developing, implementing, and managing a complex conservation policy program. The successful candidate will have to manage approximately 15 professional staff.
- Fluency in English is required. Other language capabilities, particularly French, Spanish, and German, would be an advantage.
- Experience in working with NGOs, aid agencies, and international institutions is desirable.

Please write, with comprehensive curriculum vitae and recent photograph, to: **Personnel Officer, WWF International, Avenue du Mont Blanc, 1196 Gland, Switzerland.** Closing date for applications: 31 October 1990.

### LABORATORY DIRECTOR ENVIRONMENTAL MONITORING SYSTEMS LABORATORY OFFICE OF MODELING, MONITORING SYSTEMS, AND QUALITY ASSURANCE LAS VEGAS, NEVADA

ES 401/801/1301  
\$71,200 to \$77,600

The U.S. Environmental Protection Agency (EPA) is seeking highly qualified candidates for the position of laboratory director, Environmental Monitoring Systems Laboratory, Las Vegas, Nevada (EMSL-LV), Office of Modeling, Monitoring Systems, and Quality Assurance (OM-MSQA). The EMSL-LV, a component of the Office of Research and Development, is responsible for research and development supporting a major segment of the agency's programs relating to human and ecosystem exposure to environmental pollutants. The laboratory conducts research and development in the areas of: analytical chemistry, immunochemistry, field monitoring methods and design, ecological status and trends, terrestrial ecology, integrated human exposure assessment, human biomarkers of exposure, remote sensing, geohydrology, and environmental radiation assessment.

Applicants for this Senior Executive Service (SES) position must have a bachelor's or higher degree in life sciences, physical sciences, or engineering, or a field relating to the work of the laboratory, and professional experience demonstrating leadership and technical competence in one of those fields. Applicants must also meet the technical and executive qualifications described in the Vacancy Announcement. For a copy of the Vacancy Announcement, call or write:

**Chaunta Gladney**  
Environmental Protection Agency  
Executive Resources and  
Special Programs Division  
Room M3910 (Mail Code: PM-224)  
401 M Street, S.W. (Waterside Mall)  
Washington, DC 20460  
Telephone: 202-382-3328

Applications must be postmarked by 6 November 1990. EPA is an Equal Opportunity Employer.

## POSITIONS OPEN

### CHAIR, DEPARTMENT OF IMMUNOLOGY MAYO CLINIC

Applications are invited for chair, Department of Immunology, Mayo Clinic. Department has a highly interactive group of 11 full-time faculty with diverse interests in basic science and clinical immunology research. Department has a well-supported graduate program for Ph.D. and M.D./Ph.D. candidates. Applicants should have an internationally recognized record of research in immunobiology and experience in graduate education and administration. The department chair will be expected to continue an active research program and provide a leadership role in the recruitment of additional staff positions and in the professional development of younger faculty members. Send letter of application, curriculum vitae, brief statement of research interests, and names of three references by 30 November 1990 to: **David J. McKean, Ph.D., Department of Immunology, Mayo Clinic, Rochester, MN 55905.** *An Equal Opportunity/Affirmative Action Employer.*

The Department of Pathology of the University of California, San Diego (UCSD), seeks a **CHIEF OF HEMATOPATHOLOGY**. This individual will be responsible for directing the Clinical Hematology Laboratory of UCSD Medical Center and for participating in the Bone Marrow Reading Service. Applicants should have a distinguished record in research, teaching of medical students and residents, and clinical activities sufficient to qualify for appointment as professor of pathology with tenure at UCSD. Applicants should also have Board certification in anatomic pathology with subspecialty certification in hematopathology and should have prior experience in the direction of hematopathology service. Medical licensure in California is highly desirable. Salary will depend upon the qualifications and experience of the candidate and will be consistent with established UCSD pay scales. Interested individuals should submit curriculum vitae and names of five references by 26 October 1990, to: **University of California, San Diego, David N. Bailey, M.D., Professor and Chairman, Department of Pathology, 9500 Gilman Drive, La Jolla, CA 92093-0612.** *Affirmative Action/Equal Opportunity Employer.*

### CHIEF OF LIVER TRANSPLANT SERVICE UNIVERSITY OF TEXAS MEDICAL SCHOOL AT HOUSTON

Applications are invited for a tenure-track appointment as chief of the Liver Transplant Service within the Department of Surgery/Division of Immunology and Organ Transplant. This American Board of Surgery-qualified surgeon will be responsible for all levels of liver transplantation patient care including donor selection, organ procurement, recipient selection, pre- and postoperative care, immunosuppressive therapy, and outpatient follow-up. The applicant must have performed a minimum of 50 liver transplants at a transplant program meeting UNOS criteria for liver transplantation. A completed fellowship in liver transplantation is desirable. Submit application, including curriculum vitae and letters of recommendation, no later than 1 November 1990 to: **Barry D. Kahan, Ph.D., M.D., Professor and Director, Division of Immunology and Organ Transplant, University of Texas Health Science Center at Houston, 6431 Fannin, Suite 6.240, Houston, TX 77030.** *The University of Texas Health Science Center is an Equal Opportunity/Affirmative Action Employer.*

Academic medical researcher for the Portland Veterans Affairs Medical Center (PVAMC) and the Oregon Health Sciences University (OHSU) seek an accomplished biomedical scientist with M., M.D., or Ph.D. degree for the position of **ASSOCIATE CHIEF OF STAFF** for research at the PVAMC. He/she will be responsible for administering the PVAMC research program, coordinating the relationship between research at the PVAMC and OHSU, and representing the PVAMC's research program to VA central office. This position will have significant program and faculty development responsibilities. The successful candidate will continue his/her own research program. The individual should have the qualifications for appointment as an associate or full professor in the appropriate department in the school of medicine. Send curriculum vitae, including bibliography and the names of at least three references by 15 November 1990 to: **John Crabbe, Ph.D., Chair, Search Committee Research Service (151), Veterans Administration Medical Center, P.O. Box 1034, Portland, OR 97207.** *An Equal Opportunity Employer.*

# ***Enhance Your Career With Baxter Hyland***

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Baxter Healthcare Corporation, an international leader in the pharmaceutical industry, currently has exceptional career growth opportunities for experienced professionals in our Hyland Division, located in Duarte, CA.

## **Characterization Supervisor**

Supervising R&D activities in our characterization lab, you will develop analytical techniques/methods, and recommend project timelines, staff and budget. We require a Ph.D. in Biochemistry/Analytical Chemistry with at least 2-3 years in protein characterization and structure/function analysis. Proficiency in HPLC, carbohydrate analysis, amino acid analysis/sequences, CD, ORD, MMR and mass spectroscopy needed. (Dept. BF-CS)

## **PROCESS ANALYSIS**

### **Research Scientist III**

Plan and implement the testing of patient samples including cataloging, shipping, assay development and validation as well as process validation. **REQUIRES:** BS in Biochemistry with 3-5 yrs. experience or MS degree with 1-3 yrs. experience in operation of analytical instruments and protein purification techniques. (Dept. MB-5)

## **IMMUNOLOGY**

Basic and applied research relating to product support and new technology product development assisting in areas of infectious disease treatment specifically in the development of monoclonal antibody based technologies.

### **Scientist II**

Requires a Bachelor's degree in Immunology/Biochem or related field with 1-2 yrs. experience in R&D. Must have apparent expertise in techniques for mammalian tissue culture, monoclonal antibodies production and ELISA/Western method development. (Dept. MB-26)

### **Scientist III**

Requires a Bachelor's degree in Immunology/Biochem or related field with 2-5 yrs. experience in R&D. Must have experience in Immunologic and Biochemical techniques. (Dept. MB-27)

### **Scientist IV**

Assist in developing new technologies/products in the areas of antibody based infectious disease treatment. Requires a Ph.D. in Physiology, strong background in Immunology, with 1-2 years' post-doctoral experience or equivalent. Knowledge of *in vitro* function analysis and *in vivo* models of immunologic processes essential. Infectious diseases and/or cytokines systems familiarity beneficial. Good oral/written communication skills necessary. (Dept. MB-28)

## **VIROLOGY**

### **Scientist III**

R&D, involves evaluation of antiviral agents, immunochemical and biochemical assays in retrovirology. Requires a B.S. in Microbiology, Biology, Biochemistry or related field, with 3-5+ years related experience—or MS with 1-3 years' experience in retrovirology or related discipline. Background with infectious HIV-1 infectivity assays, immunochemical and biochemical assays essential. Familiarity with process validation, GLP and computer literacy are necessary, along with excellent written/oral communication skills. (Dept. MB-12)

### **Scientist IV**

R&D including process validation, evaluation of antiviral agents, PLA/IND support, assay development and applied viral research. We require a Ph.D. in Virology, Microbiology, Biology, Biochemistry or related field with 3-5 years post-doctoral experience in Virology. Background with HIV-1 infectivity assays and Retrovirology desirable. Familiarity with process validation, GLP and computer literacy are necessary, along with excellent written/oral communication skills. Supervisory experience a plus. (Dept. MB-11)

Make Baxter—and sunny Southern California—your place of choice. Enjoy year-round warm weather and the rewards of a Fortune 100 company, including a smoke-free work environment, an attractive salary, and comprehensive benefits. Employment consideration is contingent upon the results of a drug screening test. For confidential consideration, please send your resume or CV with salary requirements (please indicate appropriate Dept.) to: **Baxter, Hyland Division, Human Resources, 4501 W. Colorado Blvd., Los Angeles, CA 90039.** We are an Equal Opportunity Employer.

Hyland Division

**BAXTER**

## POSITIONS OPEN

### DIRECTOR MAMMALIAN TOXICOLOGY PROGRAM

The Life Sciences Division of SRI International, a nonprofit research and consulting institute based in the San Francisco Bay Area, is seeking a director of its Mammalian Toxicology Program. Experience managing acute and chronic toxicology studies is required. A background in inhalation toxicology, ABT certification, and an established publication and support record are desired. Send résumé, publication list, and names of three references to: **Dr. James T. MacGregor, Director, Cancer Biology and Toxicology Laboratory, 333 Ravenswood Avenue, Menlo Park, CA 94025. SRI International is an Equal Opportunity Employer, M/F/H/V.**

### DIRECTOR CENTER FOR CANCER TREATMENT AND RESEARCH RICHLAND MEMORIAL HOSPITAL AND THE UNIVERSITY OF SOUTH CAROLINA

The Center for Cancer Treatment and Research invites application from and nomination of individuals who have a strong background in grant-funded clinical cancer research. This person will be responsible for the overall medical and research direction of the cancer program, working with a multidisciplinary university team and a community regional teaching hospital with university appointment. Construction is currently underway for a 78-bed, free-standing building with centralized outpatient services and research laboratories due for opening in January 1992.

Interested individuals should submit their curriculum vitae and documents to: **Mr. George Fant, Chairman, Search Committee, Center for Cancer Treatment and Research, Five Richland Medical Park, Columbia, SC 29203.**

### HEAD DEPARTMENT OF PHYSICS UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

The Department of Physics at the University of Illinois is seeking well-qualified applicants for the headship of the department. The department has a strong teaching and research program covering a broad range of experimental and theoretical physics. Applicants should have an international reputation in research and a strong interest in developing the research and teaching programs of the department. The head of the department is the chief administrative officer with responsibilities for administrative, budgetary, and promotion decisions, and for leading the faculty in the development of research, teaching, and public service. The department head holds the rank of professor of physics with tenure and reports to the dean of the College of Engineering. The appointment will commence on 21 August 1991. Salary is negotiable. Qualified applicants should submit résumé to: **Professor Stephen G. Bishop, Chair, Search Committee for the Head of the Department of Physics, University of Illinois, 109 Engineering Hall, 1308 West Green Street, Urbana, IL 61810. Telephone: 217-333-3097. Résumés should be received by 21 November 1990 to receive full consideration, but the search will proceed until the position is filled. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.**

### CLINICAL BIOCHEMIST

A **MANAGER** is required for the Metabolic-Nutrition Laboratory, a specialized laboratory conducting essential assays for Children's Hospital Oakland, as well as having an important function conducting federally funded research. The manager will direct the technical and budgetary operations of the laboratory.

The ideal candidate should have a doctorate and some years of experience in metabolic research and service, have (or be eligible for) a California Medical Technologist's license or California Clinical Chemistry Director license, and have extensive experience in mass spectrometry, HPLC, GC, and atomic absorption spectrometry. A specific background in the study of metabolic disorders would be highly desirable.

Interested individuals can discuss the position with **Dr. Julian Irias at 415-428-3654**, or **Dr. Cedric Shackleton at 415-428-3604**. Application forms can be obtained by writing to: **Human Resources, Children's Hospital Oakland, 747 52nd Street, Oakland, CA 94609. Equal Opportunity Employer.**

## POSITIONS OPEN

### DEAN, COLLEGE OF SCIENCES AND HUMANITIES BALL STATE UNIVERSITY MUNCIE, INDIANA

Ball State University invites nominations and applications for dean of the College of Sciences and Humanities. The dean is the chief academic and administrative officer of the university's largest college. The dean plans, directs, and coordinates the operational, personnel, budgetary, and student activities of the college and provides leadership and direction in the development and implementation of curricula, academic programs, and related activities.

Candidates must have an earned doctorate in a discipline within the college, evidence of scholarly and professional achievement, demonstrated successful experience in higher education academic administration and teaching, ability to communicate effectively, and overall qualifications that will merit a faculty appointment at senior rank in one of the departments of the college.

The dean of the college serves at the pleasure of the provost and the president. Salary is competitive and commensurate with experience and qualifications. Applicants and nominees should send letter of application, curriculum vitae, and three original letters of reference to: **Chairperson, Selection Committee for Dean of Sciences and Humanities, Office of the Provost, Ball State University, Muncie, IN 47306. Review of applications will begin 1 November 1990 and continue until position is filled. Position will be available 1 July 1991.**

*Ball State University practices Equal Opportunity in education and employment.*

The University of Washington invites applications for the position of **DIRECTOR** of the Institute for Environmental Studies (IES). The director is expected to stimulate development of interdisciplinary graduate programs, research projects, and other activities at the science/environment problem-solving interface. IES faculty, including the director, are jointly appointed by the IES and by an academic department. Selection criteria for the director include the individual's scholarly accomplishments and leadership ability.

Applications, including curriculum vitae, bibliography, and the names of three references, should be sent to: **IES Search Committee, Graduate School AG-10, University of Washington, Seattle, WA 98195**, and should be received by 15 November 1990. *The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

The University of Iowa College of Medicine is seeking a distinguished **SCIENTIST-CLINICIAN** in the molecular and/or cellular biology of cancer to direct a cancer research center as well as a clinical cancer center. This position carries with it substantial commitments in research support and space, new inpatient and outpatient facilities at The University of Iowa Hospitals and Clinics, and opportunities for faculty recruitment. The salary will be commensurate with experience. Endowment funds will be available.

Basic qualifications:

- M.D. or M.D./Ph.D. degree or equivalent.
- Nationally and internationally recognized for a fundamental research program in molecular biology including clear ability to attract extramural funding through the National Institutes of Health or equivalent in a foreign country.
- Specialty Board-certification and significant clinical experience. Demonstrated leadership in development and coordination of interdisciplinary clinical programs.
- Evidence of effective teaching/training.
- Evidence of effective administrative ability.

Please address letters of interest or nomination to: **Dr. Francois M. Abboud, Search Committee Chairman, Professor and Head of Internal Medicine, The University of Iowa College of Medicine, Iowa City, IA 52242. The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

### YOUR PERSONNEL PLACEMENT AD

in our line classified columns  
can be boxed for higher visibility.  
Call **SCIENCE** at 202-326-6555 for details.

## POSITIONS OPEN

EPA Environmental Research Laboratory (ERL), Corvallis, Oregon, ERL-Corvallis will be recruiting for the position of **PHYSICAL SCIENTIST (TEAM LEADER)** for the Global Biogeochemistry Team. The incumbent will be responsible for leading a team of scientists evaluating terrestrial biogeochemical processes as they are affected by global climate change. Understanding the feedbacks between the terrestrial biosphere and climate change factors will be the major research emphasis. This is a full-time, permanent position at the GM-14 level (\$50,342 to \$65,444). *Candidate must be a U.S. citizen.* For more information and to receive application forms when announced, call: **Roger Blair, telephone: 503-757-4634. The U.S. EPA is an Equal Opportunity Employer.**

**WAFER FABRICATION PLANT MANAGER.** Manage start-up of 25,000-square-foot wafer fabrication plant; prepare detail start-up and devise operation plans; manage manufacturing operation, planning, and control; install/characterize equipment and fabricate wafers using innovative micron technology generation. Ph.D. or equivalent in applied chemistry or material science, 5 years of experience in job offered or 5 years of senior management experience in semiconductor manufacturing/engineering in MOS or CMOS technologies. Senior management experience must include engineering start-up of high-volume wafer fabrication plant, achieving fast cycle times and high line and die yields, manufacturing planning, control, operation, industrial process/product/yield engineering, process control, budgeting, quality assurance, multimillion-dollar equipment purchasing, installation, and characterization. Also requires research experience in development of silicon MOS processes and integration. *The company supports a drug-free workplace and requires that all offers of employment be contingent on satisfactory pre-employment drug test results.* Salary: \$6600 per month; 40 hours per week. Place of employment and interview: **Rio Rancho, New Mexico. If offered employment, must show legal right to work.** Clip ad and send with résumé to: **Job Order No. 334095, New Mexico Department of Labor, c/o 1001, 501 Mountain Road, N.E., Albuquerque, NM 87103. The company is an Equal Opportunity Employer and fully supports Affirmative Action practices.**

### FACULTY POSITIONS IN STRUCTURAL BIOLOGY

Tenure-track faculty positions at the level of **ASSISTANT OR ASSOCIATE PROFESSOR** are open in the Department of Biochemistry at the University of Texas Southwestern Medical Center at Dallas. Applicants must have a relevant Ph.D. or M.D. degree and postdoctoral training and must show evidence of a firm commitment to a career in independent research. We are particularly interested in applicants who plan to apply modern experimental or computational techniques to fundamental problems in structural biology. Send curriculum vitae, list of three referees, and a brief description of proposed research to: **Johann Deisenhofer, Howard Hughes Medical Institute Laboratories, University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9050. An Equal Opportunity/Affirmative Action Employer.**

### FACULTY POSITION IN MICROBIOLOGY AND IMMUNOLOGY

The Department of Microbiology and Immunology, University of Health Sciences/The Chicago Medical School, invites applications for tenure-track faculty position at the rank of **ASSISTANT, ASSOCIATE, OR FULL PROFESSOR**. Applicants must have a Ph.D. and/or M.D. degree with solid training, research experiences, and interests in medical virology, molecular biology, or immunogenetics. The successful candidate will be expected to develop and maintain strong independent research in the field of molecular virology and to participate in teaching medical and graduate students. The department has established strength in the areas of molecular biology and immunology. The salary will be commensurate with qualifications and a negotiable starting date. Applicants should send curriculum vitae, a brief outline of current and future research plans, and the names of three references to: **Yoon Berm Kim, M.D., Ph.D., Professor and Chairman, Department of Microbiology and Immunology, University of Health Sciences/The Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064.**

*An Affirmative Action/Equal Opportunity Employer.*





### Immunology Faculty Positions

#### Sloan-Kettering Institute for Cancer Research

Tenure-track positions at the Assistant or Associate Member levels are available in the Immunology Program at the Sloan-Kettering Institute. Candidates with an interest in the molecular, biochemical, and functional aspects of lymphocyte receptors and antigens will be given preference. Candidates should have a successful record of research achievements in immunology and the ability to develop a strong, independent research program. The Immunology Program has an active and expanding faculty whose research interests encompass cellular immunology, histocompatibility, transplantation, immunogenetics, immunochemistry, gene regulation, and tumor immunology. Interactions with other members of the Immunology Program and with the other programs in the Institute (Molecular Biology, Cell Biology and Molecular Pharmacology) are encouraged. Graduate school affiliation with Cornell Medical College is possible. An attractive start-up package will be provided for the investigator to establish or re-establish his/her laboratory.

Interested persons should send a curriculum vitae, a description of research interests, and the names of three references to:

**Dr. Kenneth O. Lloyd**  
Chairman, Immunology Program  
Sloan-Kettering Institute  
1275 York Avenue  
New York, NY 10021

*SKI is committed to equal opportunity through affirmative action and therefore, members of minority groups are encouraged to apply.*

## EMORY UNIVERSITY

### Vice President for Arts and Sciences and Dean of Emory College

Emory University invites applications and nominations for the position of Vice President for Arts and Sciences and Dean of the College. The Dean is responsible for providing educational leadership and helping to focus intellectual vision within the College, for planning and overseeing the development of programs in the Arts and Sciences, and for the administration of the College, including appointments and budget.

The College currently enrolls approximately 4300 students. It is one of eleven schools and divisions within the University. Approximately 350 FTE faculty teach in a total of 28 departments and several interdisciplinary bachelor's degree programs, as well as in the Graduate School of Arts and Sciences.

Candidates must have a record of teaching and scholarship commensurate with appointment to the rank of professor. Evidence of administrative interest and aptitude is required, as is commitment to rigorous liberal arts education.

Applicants should submit a letter detailing their interest and pertinent experience, including some statement of views concerning educational leadership, together with a current curriculum vitae and the names of several references. Applications and letters of nominations should be sent to Professor Frank Manley, Chair, College Dean Search Committee, Office of the Provost, Emory University, 404 Administration Building, Atlanta, GA 30322. The search committee will begin reviewing dossiers November 1 with a view to making the decision by mid-March.

Applications from women and from minority candidates are encouraged. Emory is an Affirmative Action, Equal Opportunity Employer.

## SENIOR LITERATURE SCIENTIST

Corporate Literature Services at Warner-Lambert requires an experienced literature searcher to support the information needs of pharmaceutical and consumer products research & development, and industrial toxicology. This individual will also monitor published literature for company products and interests, conduct general searches, provide reference, user education, and technical consultation services.

Requirements include: an advanced degree, preferably in chemistry (or equivalent experience), and 3-5 years experience searching commercial online databases, including CAS ONLINE, DIALOG, MEDLARS, TOXNET, NEXIS, etc. Experience in the healthcare field is desirable.

Send your resume with salary history to: Lynn Brackbill Scott, Corporate Human Resources, Warner-Lambert, 201 Tabor Road, Building 56/1, Morris Plains, New Jersey 07950. Equal Opportunity In Action.

# WARNER LAMBERT



Founded in 1982 on the principle that within our DNA lie answers to the most profound questions of life, Lifecodes Corporation has advanced to the forefront of DNA-based genetic testing and research. With support from our parent company, Quantum Chemical Corporation, we are experiencing rapid

growth and require the skills and talents of key individuals to help us move toward the next breakthroughs in genetic testing.

### TECHNOLOGIST

In this position, you will perform DNA-based clinical tests for cancer diagnosis and evaluation and participate in developing new tests for cancer diagnosis. To do this you will need an MS in Biology/Chemistry with specialization in biochemistry, thorough knowledge of DNA technology and 2-3 years of laboratory experience.

### CHEMIST

The selected candidate will be responsible for synthesizing oligonucleotides and modifying them chemically. This requires a BS/MS in Organic Chemistry and/or training and experience in oligosynthesis, 3-4 years' experience in oligonucleotide chemistry, and experience in making enzyme conjugates. You must also have worked with an ABI 380 B DNA synthesizer or equivalent and have experience with the use of HPLC and UV/VIS Spectroscopy. DNA sequencing experience would be a plus.

If you are ready to impact lives and share in our dedication to understanding the language of our genes, we offer competitive salaries and excellent benefits including educational assistance, complete medical/dental, 401K savings and pension. Please forward your resume to: Director, Human Resources, Lifecodes Corporation, Saw Mill River Road, Valhalla, NY 10595. An Equal Opportunity Employer m/f.

## Physical Oceanographer

Department of Physical Oceanography seeks applicants for appointment to Assistant, Associate or Senior Scientist level depending upon background, experience and tenure suitability. Ph.D. in physical oceanography or related field, postdoctoral experience and demonstrated expertise in oceanography preferred. Experience in acquisition and analysis of observations or in development of dynamical models of ocean processes desired.

Send curriculum vitae, short statement of research interest and publication list by January 1, 1991 to:

**Dr. James Luyten**  
Chairman, Department of  
Physical Oceanography  
Box 54P



## WOODS HOLE OCEANOGRAPHIC INSTITUTION

**Woods Hole, MA 02543**  
An equal opportunity employer M/F/H/V

## OPPORTUNITIES IN BIOTECHNOLOGY

The Research Division of W.R. Grace & Co., a Fortune 100 company and the world's largest specialty chemical company has exceptional opportunities in its Biotechnology Research Programs.

### Product Recovery

This position requires an MS or Ph.D. Engineer specializing in downstream product recovery. Your responsibilities will include the design and evaluation of microporous/ ultrafiltered systems and recovery processes for mammalian cell products, experience with ultrafilters/microfilters is key. Fermentation experience is preferred. Experience with mammalian cells a plus. (Department 1029)

### Molecular Biology/ Genetics

We are seeking a talented scientist to conduct research in the application of: a) molecular cloning and gene expression for the production of therapeutic or catalytic protein in mammalian and microbial systems, and b) DNA fingerprinting and genotyping for the generation and management of databases relating to animal identification and marker-assisted selection programs. This position requires a Ph.D., or equivalent experience and training in molecular biology or related area. (Department 1030)

Grace offers an attractive salary, an excellent benefits program and a rewarding, growth-oriented career. We actively encourage the publication of technical papers. The Washington Research Center is located midway between Baltimore and Washington, DC in the picturesque community of Columbia, Maryland.

Please send your resume in confidence, including the appropriate department code to: **Manager, Employment, W.R. Grace & Co.-Conn., Washington Research Center, 7379 Route 32, Columbia, MD 21044.** Equal Opportunity Employer M/F/H/V.

# GRACE

## STAFF SCIENTISTS - PHARMACOLOGY/ NEUROPHARMACOLOGY

REGENERON PHARMACEUTICALS, a company dedicated to developing therapeutic agents for degenerative and traumatic neurological diseases, is seeking to apply recent advances in the understanding of neuronal growth and regeneration.

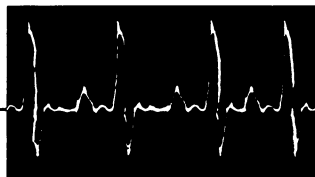
REGENERON offers an exciting, collegial environment in which state-of-the-art molecular skills are brought to bear on outstanding problems in neurobiology and medicine. Key projects focus on the discovery, purification and molecular cloning of novel neurotrophic growth factors, and on the assessment of their biological roles as well as therapeutic potentials using innovative cell culture methods and animal models.

Openings in Pharmacology require a Ph.D. in Pharmacology or related discipline and a minimum of four years' post-doctoral experience in the absorption, distribution and metabolism of drugs (preferably polypeptides and proteins). Previous experience in pharmacokinetic modeling, knowledge of protein and peptide separation techniques, and delivery of drugs to the CNS are essential. Previous industrial experience is highly desirable.

REGENERON's modern facility is located on a 275-acre wooded campus in Westchester County, 20 miles north of Manhattan, near major universities and medical centers. We offer excellent compensation packages, including generous stock options. Suburban Westchester features attractive and affordable housing, outstanding public schools and recreational facilities along with ready access to the culture and business centers of New York City.

Please forward your resume, in confidence to: **Ms. Carol Deaken, REGENERON PHARMACEUTICALS, INC. 777 Old Saw Mill River Road Tarrytown, NY 10591-6706** Equal opportunity employer.

**REGENERON**  
**Pharmaceuticals, Inc.**



## CARDIOVASCULAR DISEASE

**COR Therapeutics, Inc.** is a rapidly growing biotechnology company located in the San Francisco Bay Area. The company specializes in the development of novel therapeutics for the treatment of various aspects of atherosclerosis-induced cardiovascular disease. COR is actively recruiting highly qualified individuals with proven track records to join existing multidisciplinary research teams.

### Senior Scientist

COR is seeking an individual to lead a broad group effort responsible for developing inhibitors of restenosis due to vascular cell proliferation. Relevant cardiovascular research experience and team leadership skills are required. Five or more years' experience in the biotechnology or pharmaceutical industry is desired.

### Scientists

Two openings are available on research groups responsible for developing cellular adhesion antagonists useful for the treatment of platelet thrombosis and of reperfusion injury. Successful post-doctoral experience in molecular biology, cell biology or protein chemistry is required.

### Research Associates

Two openings are available: One requires experience in protein purification and characterization; the other requires previous experience in molecular biology with emphasis on mutagenesis and protein expression.

### Postdoctoral Fellows

These two-year positions have as their objective the understanding of basic cellular mechanisms. Three positions are available: Two involve the molecular biology of platelet membrane glycoproteins; the third focuses on identification and characterization of novel receptors mediating leukocyte adhesions.

**COR Therapeutics, Inc.** offers competitive salaries, benefits and attractive equity positions to its employees combined with the challenge and opportunity to make significant contributions. To apply, please send curriculum vitae to COR Therapeutics, Inc., Human Resources, 256 East Grand Avenue, Suite 80, South San Francisco, CA 94080. COR is an equal opportunity employer.

**COR Therapeutics, Inc.**

## Bristol-Myers Squibb Pharmaceutical Research Institute

*Bristol-Myers Squibb Pharmaceutical Research Institute is continuing to expand our efforts in basic biomedical research.*

### Clinical Scientists

Infectious Disease, CNS,  
Cardiovascular, Drug Safety &  
Human Pharmacology

These positions will involve you in the various stages of protocol construction/implementation and study administration/monitoring. Specific responsibilities include developing the draft of the study protocol and tracking the progress of clinical studies. You will also participate in literature reviews and prepare reports directed by the clinical monitor. Candidates should possess a Pharm D. or B.S. and/or M.S. in Health Sciences and a minimum of 2 years clinical research experience. Reply to Dept. 156A.

### Senior Medical Writer/Editor

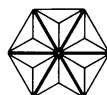
(Ph.D. Pharmacology,  
Microbiology or Physiology)

Direct a writing team responsible for the preparation of integrated summaries and expert clinical reports for regulatory submissions. In this position, you will assure compliance with Good Clinical Practices and worldwide product registration guidelines and regulations. Requires Ph.D. in Pharmacology, Microbiology or Physiology (or equivalent) and 3 - 5 years writing experience. Reply to Dept. 156B.

### Research Investigator Radioimmunology

Responsible for in vitro method development for the characterization of radioiodinated monoclonal antibodies (whole and fragments). Candidates should possess a Ph.D in Biochemistry, Organic Chemistry, Biology or a related discipline and 5-7 years experience. Direct experience in radioiodination of antibodies and proteins is necessary. This position is based at our New Brunswick, NJ facility. Reply to Dept. 156C.

Please forward your resume to (including dept. code#): **Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources Department, P.O. Box 4000, Princeton, NJ 08543-4000.** An equal opportunity employer.



**Bristol-Myers Squibb Company**



## CLINICAL GENETICIST/ EPIDEMIOLOGIST NATIONAL CANCER INSTITUTE

The National Cancer Institute, National Institutes of Health, is seeking applicants for Chief, Clinical Genetics Section, Clinical Epidemiology Branch, Epidemiology and Biostatistics Program. This scientist would head an intramural group which initiates research to provide new insights into the origins of human cancer. The section investigates peculiarities of cancer occurrence through the disciplines of clinical medicine and epidemiology and collaborations with cellular and molecular geneticists. Current emphasis is given to the clinical delineation of cancer family syndromes and disorders that predispose to cancer such as the neurofibromatosis and some birth defects, to gene mapping studies, and to studies of the late effects of cancer treatments including reproductive toxicity. Liaison is maintained with many clinical services throughout the Washington area and beyond, as well as with the NIH Interinstitute Medical Genetics Program which is accredited by the American Board of Medical Genetics.

Applicants should have a M.D. or Ph.D. or equivalent training in clinical genetics, epidemiology or a related field and be devoted to conducting studies related to cancer etiology. The type of appointment and salary are dependent on experience and qualifications. Starting salary ranges from \$50,000-70,000. In addition to the base pay, the M.D. candidate may be eligible for a physician's comparability allowance of up to \$15,000 depending on service and qualifications. Applicants should send their curriculum vitae and bibliography (or requests for further information) to:

**Dr. Dilys M. Parry**  
Clinical Epidemiology Branch  
Division of Cancer Etiology  
National Cancer Institute  
Executive Plaza North  
Room 400  
Bethesda, Maryland 20892  
(301) 496-4947



U. S. Citizenship required  
An Equal Opportunity Employer

## POSITIONS OPEN

### FACULTY POSITION IN DEVELOPMENTAL GENETICS

The Department of Biological Sciences at Dartmouth invites applications for a tenure-track position, at the **ASSISTANT PROFESSOR** level, in the general area of developmental genetics. Preference will be given to investigators working on animal or plant systems, although qualified applicants working with single cell organisms will also be considered. A Ph.D. or equivalent and postdoctoral experience are required. Applicants should send curriculum vitae, containing a statement of future research and teaching interests, and have three letters of reference sent directly to the search committee. Application review will begin on 1 December 1990. Dartmouth is an *Equal Opportunity/Affirmative Action Employer*. Address: **Chair, Developmental Genetics Search Committee, Department of Biological Sciences, Dartmouth College, Hanover, NH 03755. FAX: 603-646-1347.**

The School of Public and Environmental Affairs, Indiana University (Bloomington Campus), invites applications for two tenure-track **FACULTY POSITIONS. ENVIRONMENTAL SCIENTIST/ENGINEER:** Research specialization open; preference to candidates with hazardous waste, combustion engineering, or atmospheric sciences background. **TOXICOLOGIST/ENVIRONMENTAL SCIENTIST:** Research specialization open; preference to candidates interested in the impact of pollutants on human health. Both positions require teaching at graduate and undergraduate levels and demonstrated ability to maintain an active applied research program. Must have appropriate terminal degree (postdoctoral research preferred). The search will continue until suitable candidates have been selected; applicants should send curriculum vitae before 1 January 1991 to: **John L. Mikesell, Associate Dean for Academic Affairs, School of Public and Environmental Affairs, Indiana University, Bloomington, IN 47405.** An *Equal Opportunity/Affirmative Action Educator, Employer, and Contractor, M/F.*

### CELL/MOLECULAR PHYSIOLOGIST THE UNIVERSITY OF CHICAGO

The Committee on Cell Physiology invites applications for a **FACULTY APPOINTMENT** for qualified candidates in the area of cellular and molecular physiology. Candidates with research interests in the areas of membrane receptors, signal transduction and second messenger mechanisms, membrane transport, cell cycle control, or other aspects of cellular regulation will be considered. Those individuals utilizing molecular approaches are particularly encouraged to apply. The successful candidate will be a tenure-track appointee in the Department of Pharmacological and Physiological Sciences. Applicants should provide a brief statement of research interests and plans, curriculum vitae and bibliography, and the names of three individuals who are willing to write letters of recommendation to:

**Dr. Mitchel Villereal, Chairman**  
Cell Physiology Committee  
947 East 58th Street  
The University of Chicago  
Chicago, IL 60637

*The University of Chicago is an Equal Opportunity Employer.*

**FACULTY POSITION, MEMBRANE BIOLOGIST.** The Department of Biological Sciences at the University of South Carolina is seeking to fill a tenure-track faculty position in membrane biology. Emphasis is on modern molecular, genetic, and physical chemical approaches to studying the structure and function of cellular membranes and their roles in differentiation, cell-cell interactions, and signal transduction pathways. Faculty are expected to develop an active, extramurally funded research program, and to participate in the department's teaching activities. A wide range of biotechnological core facilities are available at the university, and add to a conducive and interactive research environment. Generous salary and start-up packages will be provided, commensurate with background and experience. The Search Committee will begin the screening process on 15 November 1990. Send updated curriculum vitae with a description of research plans and three letters of reference to: **Dr. Franklin G. Berger, Search Committee Chair, Department of Biological Sciences, University of South Carolina, Columbia, SC 29208.** *Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### BIOCHEMISTRY FACULTY POSITION

West Virginia University invites applications for a tenure-track position in the Department of Biochemistry at the **ASSISTANT PROFESSOR** level with research interests in the regulation of intermediary metabolism. Applicants should have a doctoral degree in biochemistry or related discipline, postdoctoral experience, and demonstrated research productivity; the successful applicant will also teach general biochemistry to professional and graduate students. Applicants should submit curriculum vitae including complete bibliography, a brief statement of research interests, and the names and addresses of three persons who will provide letters of reference, if requested, to: **Dr. George H. Wirtz, Department of Biochemistry, West Virginia University Health Sciences Center, Morgantown, WV 26506.** Review of applicant will begin 1 November 1990 and will continue until the position is filled. *Equal Opportunity Employer.*

### FACULTY POSITION MARINE BIOLOGY

Position available for tenure-track **ASSISTANT, ASSOCIATE, or FULL PROFESSOR** in marine biology, August 1991. A Ph.D. is required with research interests in the ecology of planktonic or benthic communities. Responsibilities include teaching general biology as well as a specialty, developing a strong research program with undergraduate and graduate students (M.S. level), and soliciting external funding to support research. This university has a multicultural enrollment of 31,000 and is an *Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer*. Minorities and women are encouraged to apply. Send a letter of application, curriculum vitae, and a list of at least three references to: **Dr. Robert Carpenter, Department of Biology, California State University, Northridge, CA 91330,** no later than 1 December 1990.

### DEVELOPMENTAL BIOLOGIST

We are seeking an outstanding individual for a tenure-track **FACULTY POSITION** in developmental biology. The appointment will be made at the **ASSISTANT PROFESSOR** level, to start fall semester 1991.

The successful candidate will be expected to initiate and maintain a vigorous research program utilizing modern molecular technology addressing a significant problem in animal and/or plant developmental biology. Teaching at both the undergraduate and graduate levels will also be required.

We offer a competitive salary, seed money, modern research space, outstanding animal care facilities, and ready access to major equipment such as TEM, SEM, and a staffed Biocore facility housing macromolecular analysis, synthesizers, sequencers, flow cytometry, and molecular modeling. Submit curriculum vitae, names of three references, and a statement of research interests by 15 November 1990 to: **Dr. Kenyon S. Tweedell, Department of Biological Sciences, University of Notre Dame, Notre Dame, IN 46556.** *Notre Dame is an Affirmative Action/Equal Opportunity Employer encouraging women and minorities to apply.*

### FACULTY POSITION IN DEVELOPMENTAL BIOLOGY

The Division of Biological Sciences, University of Missouri-Columbia, continues a multi-year hiring program with an **ASSISTANT OR ASSOCIATE PROFESSOR** tenure-track faculty appointment. We seek a developmental molecular biologist who uses an invertebrate model system to study genetic and molecular aspects of cell growth and differentiation, or the control of gene expression in development. We offer a highly competitive salary, generous start-up package, a modern research laboratory and support facilities, an active graduate program with institutional support for students and postdoctoral associates, and an interactive faculty. *We are firmly committed to fostering ethnic and racial diversity on our faculty and applications from women and minority candidates are strongly encouraged.* Applicants with a Ph.D., postdoctoral research experience and a demonstrated potential for creative research should send their curriculum vitae, publication reprints, statement of future research and teaching interests, and names, addresses, and telephone numbers of three references to: **Dr. John David, Biological Sciences, 110 Tucker Hall, University of Missouri, Columbia, MO 65211.** Applications must be received by 1 December 1990 to receive full consideration.

## IMMUNOLOGIST

**Unigene Laboratories**, a multidisciplinary biotechnology research corporation, is seeking a qualified scientist for the following position:

### SENIOR SCIENTIST

The successful candidate will have a Ph.D. degree in Immunology or related field, with at least two years of post-doctoral experience and a record of accomplishment demonstrating novelty and creativity. Experience in cellular or molecular immunology is desirable.

Unigene offers a comprehensive benefits package and the opportunity to work in an environment which fosters continuing professional development. Please send a C.V. in confidence to:

**Department of Immunology  
UNIGENE LABORATORIES, INC.  
110 Little Falls Road  
Fairfield, NJ 07004.**

**unigene**

An equal opportunity employer

## Macromolecular NMR Spectroscopist

The Physical and Analytical Chemistry Research Group of Upjohn Laboratories has an opening for an NMR spectroscopist. Applicants should have a Ph.D. in Chemistry, Biochemistry or related field, preferably with post-doctoral experience, and the ability to apply modern NMR techniques (2-D and 3-D) for the structure elucidation of macromolecules. Experience in molecular computational methods is desirable. This scientist will characterize both the structure of proteins that are targets for therapeutic intervention and the complexes of these proteins with substrate analogs and inhibitors. Also will assist in the development of heteronuclear multidimensional spectroscopy. The successful candidate will join an NMR team that is equipped with an AMX-600, AM-500 and SGI workstations, and will collaborate closely with biological, synthetic and computational chemists on a range of projects.

In addition to an opportunity for career growth, we offer a competitive salary and benefits package commensurate with experience and expected contribution. Our research facilities are located in Kalamazoo, a Michigan community midway between Chicago and Detroit offering an excellent mix of cultural and recreational opportunities. For confidential consideration please submit your curriculum vitae to The Upjohn Company, Corporate Recruiting/Code 5708-HA, 7000 Portage Road, Kalamazoo, MI 49009-0199. Refer to Job Code 5708-HA in your cover letter. An Equal Opportunity Employer M/F.

*Our Commitment To Scientific Excellence Continues...*

**Upjohn**

### POSTDOCTORAL FELLOWSHIP GASTROINTESTINAL PHARMACOLOGY

**MARION MERRELL DOW INC.  
KANSAS CITY, MO**

Marion Merrell Dow Inc. is seeking applications for a postdoctoral fellowship in gastrointestinal pharmacology to be located at its Kansas City, MO site. The area of research will focus on aspects of intestinal electrolyte transport and its regulation. Key projects will stress: 1) the role of receptors, second messengers and ion channels in transport and, 2) inter-disciplinary collaborations with other departments with the company. Applicants must possess a Ph.D. degree in pharmacology, physiology, or biochemistry with an emphasis on intestinal transport. This 2-year fellowship is supported by a competitive salary and benefits package.

Qualified applicants are asked to send a current CV including a list of publications, the names, addresses, and phone numbers of three references, and a short statement of career goals to:

Dept: JFNP



MARION MERRELL DOW INC.

P.O. Box 9627  
Kansas City, MO 64134

Equal Opportunity Employer

## Senior Research Scientist - Ph.D. Molecular Biology

This research position requires an independent person with leadership qualities to take charge of a new molecular biology laboratory. The scientist will conduct and supervise research leading to novel and improved antibodies for imaging and treatment of cancers in patients. A Ph.D. with 3-5 years experience in molecular biology required; previous supervisory experience is a plus. Direct experience in designing and optimizing mammalian and prokaryotic expression systems, PCR amplification, site-directed mutagenesis, sequencing, and cloning are desired. A working understanding of immunoglobulin genes and immunology is preferred, but not required. You will have an opportunity to make a significant impact on the company's future.

CYTOGEN Corporation is a leading biopharmaceutical company with a strong commitment to research and development. Our emphasis is on the commercialization of products for the improved diagnosis and treatment of cancer and cardiovascular disease. We are located in the Research Corridor of Princeton and Rutgers Universities, in an attractive suburban area 45 minutes from New York and Philadelphia. We offer competitive salaries and benefits. Please send resume to: **Employment Manager, CYTOGEN CORPORATION, 600 College Road East, Princeton Forrestal Center, Princeton, New Jersey 08540.** Equal opportunity employer m/f.

**CYTOGEN**

CORPORATION

Innovative Technology Targeted to Medical Needs

## POSITIONS OPEN

### FACULTY POSITION DEPARTMENT OF BIOCHEMISTRY STANFORD UNIVERSITY SCHOOL OF MEDICINE

Application or nominations are invited for a faculty position in the Department of Biochemistry at the level of **ASSISTANT PROFESSOR**.

Applicants should have an established record of excellence in original research and in teaching. Candidates should submit curriculum vitae including a list of publications, a description of their research interests, and names, addresses, and telephone numbers of three references to: **Search Committee Chairman, Department of Biochemistry, Beckman Center, Stanford University School of Medicine, Stanford, CA 94305-5307.**

*Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.*

### ANATOMY/EMBRYOLOGY FACULTY POSITION PENNSYLVANIA STATE UNIVERSITY SPRING 1991

The Department of Biology at Pennsylvania State University is recruiting a lecturer to teach comparative anatomy, mammalian anatomy, and embryology at the University Park Campus. This is a nontenure-track, full-time position subject to yearly renewal. Active research is not a requirement of this position, but research arrangements are negotiable. The salary will be commensurate with experience (up to the **ASSISTANT PROFESSOR** level); a Ph.D. is desired. Candidates should send curriculum vitae and the names and telephone numbers of three references to: **Professor L. Maxson, Head, Department of Biology, Box B1, 208 Mueller Laboratory, Pennsylvania State University, University Park, PA 16802.** Contact Ms. D. Snyder for a complete job description at 814-864-4562. Applications received by 30 October 1990 will be assured of consideration. However, applications will be considered until the position is filled. *An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### BIOLOGY BALL STATE UNIVERSITY MUNCIE, INDIANA

Tenure-track position in the Department of Biology, available fall 1991, for an **ENTRY-LEVEL** individual with primary interest in developmental biology. Candidates will be expected to convey biological principles to departmental majors, preprofessionals, and honors and graduate students in specialty areas. Responsibilities: to teach courses in developmental biology, comparative vertebrate anatomy, introductory biology and possibly genetics; to conduct research in specialty area and promote student involvement in research; and to be an active member of the academic community. Minimum qualification: earned doctorate in a biological science by 21 August 1991. Preferred qualifications: demonstrated teaching ability; publication or documented scholarly activity. Submit résumé, documentation of scholarly activity (e.g., reprints of publications or creative scholarly activities), three letters of reference, and transcripts to:

**Dr. Anne Cartwright  
Search and Selection Committee  
Biology Department  
Ball State University  
Muncie, IN 47306  
Telephone: 317-285-8820**

Review of applicants will begin 25 October 1990 and continue until the position is filled.

*Ball State University practices Equal Opportunity in education and employment.*

The Delaware Museum of Natural History invites applications for an **ASSISTANT CURATOR IN MALACOLOGY**. Responsibilities include departmental administration, conduction of collection-oriented research on molluscan systematics, participation in collection management, and the museum's public programs. Applicants must have a doctorate or equivalent experience. Curatorial experience desired. Position available immediately. Send résumé, names of three references, brief statement of research goals, and reprints by 31 October 1990 to: **Chair, Search Committee, Delaware Museum of Natural History, P.O. Box 3937, Wilmington, DE 19807.**

## POSITIONS OPEN

### FACULTY POSITIONS IN COGNITIVE/EXPERIMENTAL PSYCHOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

The Cognitive Sciences Department, University of California, Irvine (UCI), invites applications for four tenure-track positions, all with potential starting dates of 1 July 1991. One **ASSISTANT PROFESSOR** position is in the area of psycholinguistics. Three positions are available at ranks ranging from **ASSISTANT TO FULL PROFESSOR** in the areas of learning and memory, reasoning and decision making, psychoacoustics, and cognitive neuropsychology. Candidates should have a strong record of research accomplishment commensurate with their academic rank and a serious commitment to graduate and undergraduate teaching in psychology. Applicants should submit curriculum vitae, three letters of recommendation, and a letter of interest indicating the area(s) in which they wish to be considered. (Several areas may be indicated, but for initial processing purposes, please designate one primary area from the five above.) Address materials to: **Recruitment Committee for [area], Cognitive Sciences Department, University of California, Irvine, CA 92717.** To ensure consideration for a 1 July 1991 starting date, applications must be received by 15 January 1991.

*UCI is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### FACULTY POSITION IN CELL AND MOLECULAR BIOLOGY UNIVERSITY OF CONNECTICUT HEALTH CENTER

The Department of Microbiology is seeking to fill a tenure-track position at the rank of **ASSISTANT PROFESSOR**. Candidates whose research involves the application of genetic, biochemical, and molecular techniques to fundamental problems of cellular, molecular, or developmental biology are encouraged to apply. Areas of interest include but are not limited to: cell division, differentiation and development, signal transduction, and protein-nucleic acid interactions. A background in genetics or protein structure-function would be especially desirable. Applicants should have at least 2 years of postdoctoral experience and the ability to develop a high-quality research program and to teach effectively at the graduate level in the Program for Molecular Biology and Biochemistry. Application should include complete curriculum vitae including description of research experience and future research plans, copies of the candidate's most significant publications, and names of at least three references, and should be submitted to: **Dr. L. Rothfield, Search Committee, Department of Microbiology, University of Connecticut Health Center, Farmington, CT 06030.** *An Equal Opportunity/Affirmative Action Employer, M/W/H.*

### STANFORD UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF GENETICS FACULTY POSITIONS

The Department of Genetics at the Stanford University School of Medicine is seeking qualified applicants for two tenure-track positions.

One, at the tenured **ASSOCIATE PROFESSOR OR PROFESSOR** level, should be a well-recognized yeast-molecular geneticist interested in gene expression, yeast physiology and metabolism, and/or yeast cell biology. The other, at the **ASSISTANT PROFESSOR** level, can be in any field of modern eukaryotic genetics.

Candidates for either position should have a strong record of research accomplishment appropriate to their rank and may expect to become involved in teaching as well as research.

The Department of Genetics at Stanford is moving into newly renovated laboratories; concomitant with this move a number of new positions have been authorized, of which these two are the first. The plan is to fill these positions slowly and deliberately over the next several years.

*Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.*

Candidates should send curriculum vitae, bibliography, statement of research interests, and the names of references to: **Dr. David Botstein, Chairman, Department of Genetics, S-337, School of Medicine, Stanford University, Stanford, CA 94305.**

## POSITIONS OPEN

### EMORY UNIVERSITY FACULTY POSITIONS IN DEVELOPMENTAL BIOLOGY

As part of a major expansion, the Department of Biology will make several tenure-track appointments in developmental biology. Presently, available positions are at the **ASSISTANT PROFESSOR** level, although an appointment at a higher rank will be considered in exceptional circumstances. The area of research should encompass the study of mechanisms relevant to differentiation and morphogenesis. Applicants should provide evidence that they will develop a strong, independent research program and that they possess a broad knowledge of developmental biology. *Applications from minority and female candidates are strongly encouraged.* The successful candidate will occupy a laboratory in the newly constructed O. Wayne Rollins Research Center and will be provided with competitive start-up funds. Please send curriculum vitae, reprints of publications, a statement of present and future research plans, and four letters of recommendation to: **Dr. John Lucchesi, Chairman, Developmental Biology Search Committee, Department of Biology, O. Wayne Rollins Research Center, Emory University, Atlanta, GA 30322.** To ensure full consideration, applications should be received by 31 December 1990. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

## FACULTY POSITIONS

The Department of Biological Sciences at Clemson University is expanding and invites applications for three tenure-track positions:

- **ELECTRON MICROSCOPIST (ASSOCIATE OR FULL PROFESSOR).** To direct an interdepartmental facility presently equipped with scanning and transmission scopes. The successful candidate will be expected to maintain a state-of-the-art facility used for biological and materials research and carry on an active research program in the area of cell structure.

- **EUKARYOTIC CELLULAR PHYSIOLOGIST (ASSISTANT PROFESSOR).** Addressing problems in the relationship of structure with function and able to integrate cellular and molecular approaches. Postdoctoral experience is preferred.

- **BEHAVIORAL ECOLOGIST (ASSISTANT PROFESSOR).** Addressing either proximate or ultimate mechanisms of behavior.

Candidates for all three positions are expected to develop and maintain a strong, independent, extramurally funded research program; direct graduate students; and teach at the graduate and undergraduate level on their field of expertise. Substantial space and start-up funds are available.

Applicants should send curriculum vitae, representative publications, a statement of research interest, and the names and telephone numbers of three references to: **Angela L. Crawford, Search Committee Coordinator, Department of Biological Sciences, Clemson University, Clemson, SC 29634.** All materials should be received by 1 December 1990 in order to assure consideration.

*Clemson University, the land-grant institution of South Carolina, is an Affirmative Action/Equal Opportunity Employer.*

### NASA SPACE LIFE SCIENCES TRAINING PROGRAM GRADUATE STUDENT LEVEL TEMPORARY LEVEL

Applications are being accepted for temporary **STAFF POSITIONS** (January through August 1991) at the Kennedy Space Center supporting development and implementation of life science laboratory projects to be included in an intensive summer educational program for 44 undergraduates. These staff positions offer on-the-job exposure to NASA's life science operations and research under the supervision of resident and visiting scientists. Graduate student level persons with background in general biology, human physiology (cardiovascular, muscle or exercise), plant physiology, embryology, microbiology, bioengineering, or combinations of the above are especially encouraged to apply. For more information, contact: **Dr. Ronald Biro at 407-867-2521.** Submit curriculum vitae and three references by 9 November 1990 to: **Personnel, The Bionetics Corporation, Mail Code BIO-1, Kennedy Space Center, FL 32899.** *Equal Opportunity Employer, M/F/V/H.*





When you join Lilly,  
the future of her health  
may well be  
in your hands.

For over 100 years, Eli Lilly and Company has been manufacturing pharmaceuticals to ensure brighter futures for everyone. Today, that commitment continues worldwide with the discovery, development, manufacturing, and marketing of the highest quality pharmaceutical, medical instrument and animal health products. With current annual investments of more than \$600 million in research and development programs, our continued success requires the finest scientific talent available.

**SENIOR NEUROPEPTIDE PHARMACOLOGIST**  
**Lilly Research Laboratories**

Over the past several years we have established an active effort, within our division of CNS, GI, and Urogenital Research, to discover new drugs acting through neuropeptide receptors. Our biologists and chemists have been collaborating on several targets, including CCK, gastrin, substance P, and others, with an emphasis on non-peptide molecules. We are seeking a talented and motivated Biochemical Pharmacologist, with significant background in neuropeptides, to help lead the further expansion of this program.

Candidates should have a Ph.D. and at least two years post-doctoral experience, with expertise in receptor pharmacology and *in vitro* functional assay systems such as second messengers or smooth muscle. Additional experience with *in vivo* methods such as neurochemistry is desirable.

The successful applicant will become a key member of our neuropeptide research team, with opportunities for professional growth and leadership in both the basic and directed aspects of this drug discovery program.

In addition to attractive salaries and benefits, Lilly provides excellent opportunities for continued growth through in-house seminars and off-site programs. Qualified applicants should submit a letter of application along with their CV, official transcripts, and names of three references to:

Christina C. Bodurow, Ph.D.  
Ph.D. Recruitment  
Corporate Recruitment  
Eli Lilly and Company  
Lilly Corporate Center  
Indianapolis, IN 46285

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## POSITIONS OPEN

### FACULTY POSITION IN DEVELOPMENTAL GENETICS AT WAKE FOREST UNIVERSITY

The Biology Department of Wake Forest University invites applicants for a tenure-track position to be filled at the ASSISTANT PROFESSOR level. We especially welcome applications from minority candidates. Required qualifications include a Ph.D. with training and experience in modern developmental genetics. Preference will be given to candidates working in the areas of cell and molecular biology, sensory biology, or parasitology. The successful candidate will be expected to develop courses in the areas of genetics, development, and the candidate's specialty, as well as at times teach in the core curriculum. The candidate will also be expected to establish a strong research program and to participate in the training of master's and doctoral students. Submit curriculum vitae, a statement of career interests and goals, and have three letters of recommendation sent to: Dr. M. J. Jaffe, Chairman of the Developmental Genetics Search Committee, Biology Department, Wake Forest University, Winston-Salem, NC 27109. Wake Forest University is an Equal Opportunity Employer.

Jefferson Institute of Molecular Medicine: FACULTY POSITION IN MOLECULAR BIOLOGY AND RELATED AREAS. The Jefferson Institute of Molecular Medicine of the Department of Biochemistry and Molecular Biology of Thomas Jefferson University is seeking an additional scientist to complete its complement of 18 new faculty members. The position is tenure track. Candidates will be evaluated primarily on the basis of potential to establish an outstanding research program in an area of molecular biology, immunology, genetics, or biochemistry. The successful candidate will be provided with competitive salary, space in a new research building, a start-up equipment grant, and some continuing support for the research program. Send curriculum vitae and three letters of recommendation by 1 January 1991 to: Dr. Darwin J. Prockop, Director, Jefferson Institute of Molecular Medicine, Thomas Jefferson University, 11th and Walnut Streets, Philadelphia, PA 19107. We are committed to a smoke-free environment. Equal Opportunity Employer.

**POSTDOCTORAL POSITION.** Available for studies on multidrug resistance in human leukemia cell lines. These studies will focus on the isolation and characterization of new drug resistance related genes and their protein products. Experience in gene cloning technology highly desirable. Send curriculum vitae and names of references to:

Dr. Melvin S. Center  
Division of Biology, Ackert Hall  
Kansas State University (KSU)  
Manhattan, KS 66506

KSU is an Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITION IN PRIMATE REPRODUCTIVE ENDOCRINOLOGY

Available immediately to Ph.D. to study peptide and steroid hormone production at cellular/subcellular/molecular levels by maternal-fetal-placental unit during baboon pregnancy. Experience with primates is not necessary. Background in reproductive endocrinology and U.S. citizenship essential. Send curriculum vitae to:

Eugene D. Albrecht, Ph.D.  
Department of Obstetrics and Gynecology  
University of Maryland School of Medicine  
655 West Baltimore Street  
Baltimore, MD 21201

**POSTDOCTORAL POSITION.** Available immediately to participate in research on molecular virology and immunology of HIV/SIV in vitro and in vivo studies using chimpanzees and macaques under the direction of Dr. Jorg Eichberg. A Ph.D. in microbiology/immunology with experience in the molecular and immunological aspects of human and nonhuman primate retroviruses is essential. Salary ranges from \$21,694 up, with consideration for prior relative postdoctoral experience. Send curriculum vitae and the names and phone numbers of three references by 15 November 1990 to: Personnel Director (054), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78228-0147. Equal Opportunity Employer, M/F.

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Available immediately to study olfactory transduction and coding using a combination of the patch clamp technique and measurement of intracellular  $Ca^{2+}$  concentration in single cells using fluorescent indicators. Experience in electrophysiology and/or fluorescent dye techniques desired. My laboratory is part of an interdisciplinary group studying the mechanisms of olfactory transduction using biochemical, molecular biological, and biophysical approaches. Send curriculum vitae and names of three references to: Diego Restrepo, Ph.D., Monell Chemical Senses Center, 3500 Market Street, Philadelphia, PA 19104.

**POSTDOCTORAL POSITION IN PLANT-MICROBE INTERACTIONS.** Available 1 November 1990 to undertake biochemical and genetic analysis of the role of lipopolysaccharide in the development of nitrogen-fixing symbioses between *Rhizobium* bacteria and their legume hosts. Send curriculum vitae and names of three references to: Dr. Dale Noel, Biology Department, Marquette University, Milwaukee, WI 53233. An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION.** Available immediately in the Department of Biochemistry and Biophysics, University of California, San Francisco, for molecular genetics work on the structure, function, and biosynthesis of bacterial enzymes with covalently bound flavin and quinone prosthetic groups. Experience with recombinant DNA techniques is essential, and protein biochemistry experience would be helpful. Send curriculum vitae and references to: Dr. W. S. McIntire, Department of Veterans Affairs Medical Center, Molecular Biology Division (151-S), 4150 Clement Street, San Francisco, CA 94121.

### MOLECULAR PATHOGENESIS

**POSTDOCTORAL POSITIONS** available to study the regulation of *Salmonella*-macrophage interactions and/or the molecular basis of bacterial resistance to cationic peptide antibiotics (see *TBS* 15, 30-33). Experience in molecular biology, protein biochemistry, or cell biology is required. Candidates should send curriculum vitae and the names of three references to: Dr. Eduardo A. Groisman, Washington University School of Medicine, Department of Molecular Microbiology, Box 8230, 660 South Euclid Avenue, St. Louis, MO 63110-1093. An Affirmative Action/Equal Opportunity Employer, M/F/H/V.

### POSTDOCTORAL ASSOCIATE IN NEUROBIOLOGY

Postdoctoral position available in laboratory investigating the role of innervation in the regulation of neuronal nicotinic acetylcholine receptor gene expression in chick parasympathetic ciliary ganglion neurons. Experience with molecular biological techniques required. Please send curriculum vitae, a statement of research experience and interests, and the names of three references to: Dr. Michele Jacob, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.

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Several PRE- AND POSTDOCTORAL POSITIONS are available in the molecular aspects of plants, microbes, and their interactions; molecular neurobiology; x-ray crystallography; and protein structure analysis. Send applications to: Director, Ohio State Biotechnology Center, Rightmire Hall, 1060 Carmack Road, Columbus, OH 43210. The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION IN MICROBIOLOGY/BIOCHEMISTRY.** Available to study bacterial degradation of organic pollutants found in groundwater. Emphasis is on development and study of strains able to degrade substituted aromatic compounds. Background in microbial physiology, molecular biology, and strain construction helpful. Position is at Tyndall Air Force Base, Panama City, Florida. Annual stipend range is \$29,150 to \$41,400. Doctoral degree received within 3 years of starting date required, as is U.S. citizenship or PRA status. Contact: Postgraduate Research/Tyndall, Science/Engineering Education Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117. Telephone: 615-576-3456.

## POSITIONS OPEN

### POSTDOCTORAL POSITION

A position is immediately available to study the molecular biology regulation of glycogen biosynthesis in *Escherichia coli*. Experience in molecular biology is preferred. Send curriculum vitae and names of three references to:

Tony Romeo, Ph.D.  
Department of Microbiology and Immunology  
Texas College of Osteopathic Medicine/  
University of North Texas  
3500 Camp Bowie Boulevard  
Fort Worth, TX 76107  
Telephone: 817-735-2121  
FAX: 817-735-2133

Two **POSTDOCTORAL POSITIONS** available immediately to apply yeast artificial chromosome (YAC) cloning to the characterization of human telomeres [Riethman *et al.*, *PNAS* 86, 6240-6244 (1989)] and to the study of chromosome breakpoint regions associated with human diseases. Excellent opportunity to learn YAC cloning in characterization techniques in a cancer research environment. Send or telefax curriculum vitae and two letters of reference to: Harold Riethman, Assistant Professor, The Wistar Institute, 36th and Spruce Streets, Philadelphia, PA 19104. FAX: 215-898-3995. Equal Opportunity Employer, M/F.

**Ph.D. TRAINING PROGRAM IN MOLECULAR AND CELLULAR PHARMACOLOGY.** Areas of research training include: structure and function of membrane receptor and transporter proteins; platelet and vascular thromboxane and prostaglandin receptors; the tissue kallikrein-kinin system; hormonal and tissue control of gene expression; mechanisms of arterial pressure control; vascular endothelium; molecular toxicology; drug metabolism; and pharmacokinetics. Graduate student stipends/fellowships up to \$15,000 per year. Contact: Dr. George E. Lindenmayer, Department of Pharmacology and Experimental Therapeutics, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425. An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL TRAINEESHIP.** Available immediately in Agriculture Canada to study detection of food pathogens via monoclonal antibodies in enzyme immunoassays. We require the applicant to have a Ph.D. degree in immunology/immunochemistry/biochemistry and experience in planning and conducting research on the chemistry of polysaccharides, lipopolysaccharides, and proteins of bacteria, high and low pressure chromatography, immunoassays, immunology of antibody production, and computer-aided statistical analysis and data management. The applicant must have evidence of senior authorship on published reports and experience in supervising technical personnel. Effective interpersonal relationships is important. Annual stipend is \$32,625. Applicants should send curriculum vitae and the names of three references to: Dr. K. H. Nielsen, Sero-Immunology Section, Animal Diseases Research Institute, Agriculture Canada, 3851 Fallowfield Road, P.O. Box 11300, Station H, Nepean, Ontario K2H 8P9, Canada. Telephone: 613-998-9320. Knowledge of English is essential. Agriculture Canada is an Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL TRAINING PROGRAM IN NEUROBIOLOGY,** Columbia University. Emphasis is placed on the analysis of the cellular and molecular basis of neural development, behavior, and behavioral plasticity. Training faculty include: Richard Axel, Craig Bailey, David R. Colman, Jane Dodd, Michael Gershon, Claude Ghez, Daniel Goldberg, James Goldman, Lloyd Greene, Mary E. Hatten, Robert Hawkins, Thomas Jessell, Eric Kandel, John Koester, Irving Kupfermann, Ronald Liem, Amy MacDermott, Carol Mason, John Martin, Frederick R. Maxfield, John E. Pintar, Steve Rayport, Lorna Role, Taube Rothman, Samuel Schacher, James Schwartz, Eli Shapiro, Michael Shelanski, Steven Siegelbaum, and Gary Struhl. Applicants for this NIMH-sponsored program must have the M.D., Ph.D., or D.V.M. degree and be either U.S. citizens or have permanent residency status. Send curriculum vitae, a letter describing research interests, and three letters of reference to: Admissions Committee, Postdoctoral Training Program, Center for Neurobiology and Behavior, 722 West 168th Street, New York, NY 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.

## ROCKEFELLER FOUNDATION BIOTECHNOLOGY CAREER FELLOWSHIPS

The Rockefeller Foundation announces a program of career development fellowships designed to enable scientists from developing countries, trained at outstanding centers for advanced research in biotechnology, to continue to work at those or other institutions for three months each year, over a period of at least three years, conducting advanced research and keeping abreast of new developments in their fields. The program will focus upon the development and application of advances in molecular and cellular biology and immunology relevant to agriculture, health, and reproductive biology.

Funding will be shared between the Foundation and the host laboratory, with the Foundation providing travel and per diem support. It is hoped that the fellowships will encourage the establishment of ongoing working relationships between outstanding younger scientists working at third world institutions, and research teams at advanced laboratories.

Applicants to this program should have at least Ph.D.- or M.D.-level training, a proven record of scientific productivity, and a permanent position at a research or teaching institution in their home country. A research project proposal must be developed and submitted jointly by the candidate and the laboratory sponsor.

Information about application procedures can be obtained by writing to **Biotechnology Career Fellowships, Fellowship Office, Rockefeller Foundation, 1133 Avenue of the Americas, New York, New York 10036, USA.**

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### POSTDOCTORAL FELLOW Drug Regulatory Affairs

Postdoctoral Fellows are initially appointed for up to 52 weeks with a renewal for a second year upon the mutual agreement of the employee and Burroughs Wellcome Co.

The Clinical/Precinical Fellow will prepare FDA submissions and will act as liaison between the FDA and Drug Regulatory Affairs.

Candidates need a Ph.D. in pharmacology or similar area (biochemistry), **OR** Masters's degree in pharmacy, **OR** a Pharm.D. Other factors that would be a plus are clinical or preclinical research experience, especially in clinical pharmacology; technical writing experience; and PC skills.

Burroughs Wellcome Co. offers top benefit programs along with very competitive salaries. If you are interested in working for us, submit your resume, indicating position number in your cover letter, by **October 26, 1990**, to: **Burroughs Wellcome Co., Pos. #62306-1, 3030 Cornwallis Road, Research Triangle Park, NC 27709.**

For information on other job opportunities with Burroughs Wellcome Co., call our Job Information Line at **(919)248-8347** in Research Triangle Park, NC or **(919)830-2997** in Greenville, NC.

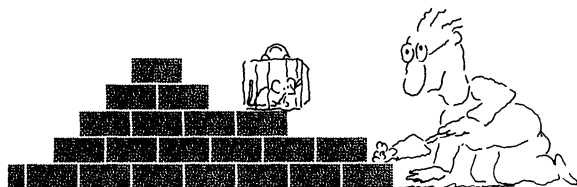


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## POSTDOCTORAL FELLOWSHIPS

The Hippel Cancer Research Center, an innovative research leader in the examination of the molecular and genetic nature of cancer, has immediate **Postdoctoral** opportunities in three areas:

**Blood Cell Growth Factors:** to purify and characterize megakaryocyte colony-stimulating factor (Meg-CSF) and other novel hematopoietic colony-stimulating factors. Candidates should be cell or molecular biologists, glycoprotein biochemists, or experimental hematologists with experience in protein purification and/or in vitro hematopoietic cell cloning.

**Pharmacology/Toxicology:** to develop and apply novel in vitro systems for pharmacologic and toxicologic evaluations of new antineoplastic and anti-HIV drugs. Candidates should be pharmacologists, toxicologists, cell biologists or biochemists with experience in cell culture and bioassays.

**Biological Response Modifiers:** to study interferon receptors and interferon-mediated regulation of cellular gene expression and the underlying biochemical mechanisms. Candidates should be biochemists or molecular biologists with some experience in working with nucleic acids and recombinant DNA techniques.

A member of the Association of American Cancer Institutes, the **Hippel Cancer Research Center** has four well-funded research divisions supported by NCI peer-reviewed grants and contracts. The Cancer Center provides competitive salaries and benefit packages. Candidates should submit curriculum vitae, statement of research interests and goals, and the names of three references to:

Hippel Cancer Research Center  
4100 South Kettering Boulevard  
Dayton, Ohio 45439-2092.

*An Equal Opportunity, Affirmative Action Employer,  
the Hippel Cancer Research Center offers a smoke-free environment.*

## POSITIONS OPEN

### POSTDOCTORAL POSITION IN REPRODUCTIVE NEUROENDOCRINOLOGY

Available 1 February 1991 to identify the neurohormones utilized by progesterin target cells and to study the neurotransmitter response to steroid hormone action in monkey hypothalamus and midbrain as related to the regulation of prolactin secretion. Experience with ICC and in situ hybridization with interest in reproductive endocrinology or neuroscience desirable. Salary based upon NIH stipend scale. Applicants please send curriculum vitae, research interests, and names of three references to: **Dr. Cynthia L. Bethea, Division of Reproductive Biology and Behavior, Oregon Regional Primate Research Center, Beaverton, OR 97006.** *An Equal Opportunity/Affirmative Action Employer.*

**MOLECULAR ENDOCRINOLOGY. A POSTDOCTORAL POSITION (M.D. or Ph.D.)** to study thyroid hormone action and c-erbA structure/function. The appointee will conduct research on the characterization of human thyroid hormone receptor mutants and on the role of thyroid hormones and c-erbA proteins in cellular growth and transformation. Experience in molecular genetics, tissue culture, and/or protein biochemistry desired. Please send curriculum vitae to: **Stephen J. Usala, M.D., Ph.D., Department of Medicine, East Carolina University, Greenville, NC 27858.** *An Equal Opportunity/Affirmative Action Employer. Federal law requires proper documentation of identity and employability at the time of employment. It is requested this documentation be included with your application.*

### STANFORD UNIVERSITY POSTDOCTORAL POSITIONS IN CELL AND MOLECULAR BIOLOGY OF MEMBRANES

Postdoctoral positions are available immediately in an interdepartmental program at Stanford University. Applications are solicited from individuals with the Ph.D. or M.D. degrees with training in biochemistry or cell or molecular biology. Current research areas and principal investigators include: protein and lipid traffic between malaria parasites and host membranes (K. Haldar); molecular biology of membrane transport, membrane-cytoskeleton interaction (R. R. Kopito); protein sorting in regulated secretory cells, organelle biogenesis (A. W. Lowe); cell polarity, membrane-cytoskeleton interactions (W. J. Nelson); and enzymes of the ER, lipid trafficking, cholesterol metabolism (R. D. Simoni). Interested candidates should send a letter summarizing their research experience and interests, curriculum vitae, and the names and addresses of three references to: **Program in Cell and Molecular Biology of Membranes, Department of Biological Sciences, Stanford University, Stanford, CA 94305-5020.**

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### SOUTHWEST IN VIVO NMR RESOURCE FACILITY POSTDOCTORAL POSITIONS

The Biomedical Magnetic Resonance Center has postdoctoral positions available for independent basic research as well as research in a diversity of already established projects. Opportunities exist for working with a 9.4-tesla microscopic imaging unit and 4.7/140-cm bore imaging and spectroscopy unit. Several VAX 11/750 and Sun computers are dedicated to support NMR research. These positions require a background in biochemistry, biophysics, or physiology and a basic knowledge of NMR physics and instrumentation.

The research programs of this center focus on the improvement of rf coil technology; NMR instrumentation for applications to clinical medicine and basic biomedical research; and studies of metabolism in the ischemic and reperfused heart. This center is presently supported in part by a grant from the Biotechnology Resources Program of the NIH as a regional facility and two RO1 grants.

Inquiries for information and curriculum vitae should be addressed to:

**Ray L. Nunnally, Ph.D.**  
Associate Professor and Director  
Biomedical Magnetic Resonance Center  
University of Texas Southwestern Medical Center  
at Dallas  
5801 Forest Park  
Dallas, TX 75235-8085  
Telephone: 214-688-8184  
*An Equal Employment Institution.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Available immediately to study regulation of human macrophage and neutrophil functions (oxygen radicals, hydrolases, cytokines, signal transduction) in resistance to infection. Familiarity with the chemistry of lipopolysaccharide desirable. Send curriculum vitae, and the names and addresses of three references to: **Dr. Michael Pabst, Dental Research Center, University of Tennessee, 209 Nash Building, 894 Union Avenue, Memphis, TN 38163.**

*The University of Tennessee is an Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.*

### POSTDOCTORAL POSITION IN MOLECULAR NEUROBIOLOGY

To study the GABA/benzodiazepine receptor or endogenous benzodiazepines with monoclonal antibodies, recombinant DNA, and patch clamp techniques. A background in molecular biology and/or biochemistry is desirable. Please send curriculum vitae and three references to: **Dr. Angel L. de Blas, Division of Molecular Biology and Biochemistry, 109 Biological Science Building, University of Missouri-Kansas City, Kansas City, MO 64110-2499.** *Equal Opportunity Employer.*

**POSTDOCTORAL FELLOWSHIP.** Available immediately to study the interactions of small hydrophobic ligands with membranes and the mechanism of transport of such compounds. *NIH funds require that applicants be U.S. citizens or permanent residents.* Background in biophysics, biochemistry, or related areas required. Send curriculum vitae and names of references to: **Dr. Noa Noy, Cornell University Medical College, F-231, 1300 York Avenue, New York, NY 10021.**

### POSTDOCTORAL FELLOWSHIPS IN THE DEPARTMENT OF ANATOMY AND NEUROBIOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

Several positions for research in individual laboratories in the department are available for candidates who have demonstrated research promise at the predoctoral or postdoctoral level. The emphasis of research in the department is in the neurosciences with special expertise in neuromorphology, sensory physiology, and molecular neurobiology. The faculty of the department and their research interests are:

- **Dr. Robert Blanks:** Eye movement control, physiology of upper airway.
- **Dr. James Fallon:** Chemical neuroanatomy, transmitters, and growth factors.
- **Dr. Christine Gall:** Limbic/olfactory anatomy, neurotrophic factors, neuronal gene expression.
- **Dr. Roland Giolli:** Visuomotor system: structure/function relationships.
- **Dr. Stewart Hendry:** Primate visual system.
- **Dr. Paul Isackson:** Molecular neurobiology, neurotrophic factors.
- **Dr. Edward Jones:** Transmitter regulation in primate cerebral cortex.
- **Dr. Glenn Kageyama:** Oxidative metabolic development and plasticity.
- **Dr. Leonard Kitzes:** Auditory system anatomy and physiology.
- **Dr. W. Ian Lipkin:** Neurotropic viruses, viral vectors.
- **Dr. Sandra Loughlin:** Monamines, peptides, and growth factors and their receptors.
- **Dr. Diane O'Dowd:** Function and regulation of ion channels in *Drosophila*.
- **Dr. Charles Ribak:** Epilepsy, neurotransmitters, and hippocampal circuits.
- **Dr. Richard Robertson:** Thalamocortical development.
- **Dr. Malcolm Semple:** Auditory processing.
- **Dr. Martin Smith:** Cellular and molecular aspects of synaptogenesis.
- **Dr. John Swett:** Spinal cord and peripheral nervous system.
- **Dr. Yasuhiro Torigoe:** Peripheral nervous system and oculomotor control.

Applications or inquiries for additional information should be sent to:

**Dr. Edward G. Jones, Professor and Chairman**  
Department of Anatomy and Neurobiology  
University of California, Irvine  
Med Surge II, Room 364  
Irvine, CA 92717

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## POSITIONS OPEN

### POSTDOCTORAL POSITION

A postdoctoral position is available to study the role of two recently cloned helix-loop-helix proteins in leukemogenesis and lymphohematopoietic differentiation. Retroviral-mediated gene transfer is being used to deliver genes into hematopoietic cells and also to identify novel, lineage-specific genes. Applicants should have a solid background in molecular biology and an interest in experimental hematology. Send curriculum vitae and the names and telephone numbers of three references to: **Dr. Stephen Brandt, Departments of Medicine and Cell Biology, Room C3101, Medical Center North, Vanderbilt University Medical Center, Nashville, TN 37232.** *Vanderbilt is an Equal Opportunity Employer.*

**NIH POSTDOCTORAL FELLOWSHIPS.** Available to study cell aging and controls of cell proliferation/differentiation. Start dates prior to 1 January 1991 or after 1 May 1991. Send curriculum vitae and statement of research interests to: **Barbara Gilchrist, M.D., Department of Dermatology, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118.**

### POSTDOCTORAL FELLOW

Position available to study the receptor/ligand interactions and host immune response mechanisms of ocular bacterial pathogens, particularly *Pseudomonas aeruginosa*. Experience in immunology/microbiology or biochemistry preferred. Send curriculum vitae, names of three references, and other supporting documents to: **Dr. Linda Hazlett, Professor, Department of Anatomy and Cell Biology, Wayne State University Medical School, 540 East Canfield Avenue, Detroit, MI 48201.** *Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL FELLOWSHIPS.** Qualified applicants will be recruited for undertaking cellular and molecular studies on (i) the role of the seminiferous growth factor (SGF) in sex determination and development of the male reproductive system and (ii) the function of germ cell-specific, nuclear proteins during spermatogenesis and fertilization. Ph.D. and/or M.D. degree required. Send curriculum vitae and names of three referees to: **Dr. Anthony R. Bellvé, Department of Anatomy and Cell Biology, College of Physicians and Surgeons, Columbia University, 650 West 168th Street, New York, NY 10032.** *An Affirmative Action Employer.*

**POSTDOCTORAL INSTRUCTOR AND FELLOW.** Investigates and conducts experimental studies in vivo on bone/bone marrow metastasis. Determines bone destruction, spinal cord compression by cancer cells. Studies effect of bone marrow transplantation after total body irradiation. Uses biological research techniques including Southern, Northern, and Western blot; tissue culture cell growth; and immunologic assays. Evaluates experimental drugs and treatment of metastasis in animals. Requires 3 years of postdoctoral research experience in field of metastasis, M.D. or Ph.D. in immunology or biological sciences. Five days, 40 hours per week. Salary: \$30,000 to \$35,000 per year, depending upon qualifications. Send résumé to: **New York State Department of Labor, 140 West Main Street, Rochester, NY 14614, Attention: B. B. Herman.**

**FELLOWSHIPS FOR POSTDOCTORAL TRAINING.** In neural development, plasticity, and regeneration at The Ohio State University. Systems, cellular, and molecular approaches are available for trainees supported by an NINDS training grant. Faculty include K. Alley, M. Beattie, G. Bishop, J. Boulant, J. Bresnahan, R. Burry, H. Cooke, R. Ho, L. Horrocks, J. King, D. Lim, G. Martin, N. Neff, R. Nordlander, R. Rogers, A. Rotter, B. Stokes, R. Tassava, S. Tjoe, J. Wood, and A. Yates. *Fellows supported by the training grant must be U.S. citizens or permanent residents;* however, other positions may be available which can be supported by funds available to individual investigators.

Applications, including curriculum vitae, statement of research interests, and three letters of recommendation, should be sent to: **Drs. G. F. Martin and M. S. Beattie, Department of Cell Biology, Neurobiology and Anatomy, The Ohio State University, 333 West 10th Avenue, Columbus, OH 43210.** Potential applicants are encouraged to contact the program directors and prospective faculty sponsors for detailed information. **Telephones: Dr. Martin, 614-292-1667; Dr. Beattie, 614-292-1781.**



## TAKE A CLOSER LOOK AT COLLAGEN R&D



Collagen Corporation is expanding its R&D efforts in the area of novel biomaterials and medical devices. While Collagen is the leader in injectable collagen for soft tissue augmentation and repair, we are also taking our technology to new venues of medical relevance, including collagen ceramic composites for bone grafting, membranes for guided tissue regeneration, cartilage repair/replacement, and biocompatible materials to treat urology disorders. Also on the horizon are new ophthalmologic products and drug delivery vehicles.

To address these exciting R&D programs, we are seeking the following innovators to join our multidisciplinary team.

Successful candidates must possess a creative problem solving approach as well as excellent communication skills.

### **Collagen Biochemist**

You'll play a key role in developing a variety of collagen-based materials for medical device application. In addition to a Ph.D. in Biochemistry, Biomaterials, or an applicable field, you'll need experience in fabricating biomaterials from collagen with a basic understanding of related physics and chemistry to include: formulation, chemical derivation, crosslinking, analytical characterization, biocompatibility, and stability.

### **Biomaterials Engineer**

Contributing your specialized expertise, you will lead our multifaceted biomaterials development program and establish relevant animal models for evaluating collagen-based medical devices. Along with a Ph.D., D.V.M., or M.D., your credentials include strong biomechanical skills with a background in biomaterials, polymers, biology, anatomy, histology, and/or surgery. Current familiarity with relevant literature also required.

### **Rheologist**

You will be directly involved in the physical and chemical characterization of in-process and final product streams, assay development and reduction to practice. Your experience characterizing collagen gels, suspensions and other formulations is supported by an M.S./Ph.D. in Rheology or Chemical Engineering.

### **Polymer Chemist**

Working in the development of our Bioadhesive technology, you will modify composites of natural/synthetic compounds to formulate and synthesize biocompatible polymers. Experience in the synthesis and characterization of polymers/hydrogels is required as is an M.S./Ph.D. in polymer science, organic chemistry, or related field.

In addition to a professional association with one of the most highly rated R&D organizations in the country, you will enjoy an excellent salary and benefits package, which includes relocation assistance, stock purchase plans and merit rewards based on your performance. For consideration, please send your resume, indicating position of interest, to: Collagen Corporation, 2500 Faber Place, Dept. SLH, Palo Alto, CA 94303. We are an equal opportunity employer.



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## **Manager Drug Metabolism Operations**

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In this important role, you will direct a small staff and coordinate various core drug metabolism operations such as protocol preparation, critical review of research reports, as well as collaborative projects with other R&D divisions. This involves tracking timeliness of drug metabolism projects and integrating activities with contract research laboratories. A PhD in Chemistry, Biochemistry, Pharmacy, Pharmacology or a related discipline is essential, together with at least 10 years' post-doctoral supervisory experience in Drug Metabolism or Pharmacokinetics in the pharmaceutical industry.

You must have extensive knowledge and experience in pharmaceutical drug metabolism, superior oral and written communication skills, and expertise interacting effectively within an R&D environment.

We offer an excellent salary and benefits package. For immediate consideration, please send your resume to: Mr. R. Blackburn, Schering-Plough Research, P.O. Box DS-90-15, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

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# BIOTECHNOLOGY/ BIOLOGICAL OPPORTUNITIES

*Bristol-Myers Squibb Company, a leader in biotechnology and a major international manufacturer of pharmaceutical products, is expanding its Biotechnology and Biological Process Development Group, with a new protein recovery and purification facility, nearing completion in Syracuse, New York. The Biotechnology and Biological Process Development Group is responsible for full development of biologicals as therapeutics in support of clinical research and development of commercial processes. This environment provides unique opportunities for scientists, with diverse background, to work as a team on challenging projects which are at the cutting edge of biotechnology. We are seeking highly motivated, innovative professionals at the PhD and BS/MS levels in the following disciplines:*

## **Fermentation**

### **Microbiologists/Biochemists**

Positions are open for BS/MS and PhD Microbiologists experienced in microbial and mammalian cell culture for production of biological proteins and enzymes. Seeking expertise in any of the following areas: long-term maintenance/preservation of cell lines; laboratory propagation of cell populations; operation of flask, roller bottle and small tank reactor; mutational selection and laboratory evaluation for antibiotic and enzyme fermentations.

### **Analytical Biochemists**

Positions available for PhD and BS/MS Biochemist or Chemist to perform routine hplc, spectrophotometric and colorimetric assays on fermentation or cell culture broths. Experience with computers and robotic assays essential. Must effectively interact with other lab and pilot plant biotechnologists.

### **Protein Chemists**

Positions are open for scientists with PhD (with postdoctoral experience) and BS/MS degrees in Protein Chemistry, Chemistry or Biochemistry with experience in purification and analysis of proteins. Responsibilities include developing purification processes suitable for pilot plant scale production of clinical quality therapeutic proteins. Projects include therapeutic monoclonal antibodies, recombinant proteins and enzymes. Industrial experience in gram-scale processing and purification of proteins derived by cell technology under GMP conditions is preferred.

### **Molecular Biologist- Gene Expression**

Opportunity for a scientist with PhD in Molecular Biology or related field and postdoctoral experience in gene expression. You will be responsible for developing gene expression expertise in mammalian host cell systems and for maximizing expression by genetic engineering technology. Focus will include systems for chimeric monoclonal antibodies and recombinant proteins. Experience in developing expression vectors for mammalian hosts is necessary and industrial experience is preferred.

### **Cell Biologists**

Positions are available for scientists with PhD (with postdoctoral experience) and BS/MS degrees in Cell Biology or related field to support the development of improved cell lines using cell biology techniques. Projects will include monoclonal antibodies and recombinant protein derived from mammalian cells. Prefer experience in improving cell lines by clonal selection, adaptation, media development and cell sorting. Industrial experience is preferred.

### **Biologics GMP Coordinator**

A position is available for a MS scientist with experience in the biotechnology or pharmaceutical industry. You will organize, update, write all necessary GMP and GLP procedures for the clinical supplies manufacture of biologics and related fermentation products. You must have thorough knowledge of GMP procedures and be responsible for updating process manuals and validation protocols.

### **Biologics Project Manager**

A position is available for a MS, PhD scientist with four plus years experience in biologics program coordination and excellent organizational and communication skills. You will assist the VP of Biotechnology in coordinating production programs between Exploratory Biomedical Research scientists and the Biological Process Development scientists in Syracuse.

### **Chemical/Biochemical Process Control Engineer**

Opportunity for an individual with a BS/MS in Chemical/Biochemical Engineering and/or process control who will focus on the development of antibiotics and other fermentation products. Must be capable of developing control strategies and translating concepts into automated control systems. Background in penicillin or cephalosporin fermentation would be advantageous.

### **Biochemical Engineer**

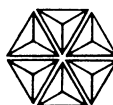
Opportunity for an individual at the MS/PhD level in Biochemical Engineering, or a related discipline, with experience in the industrial production of cell-technology derived proteins. This position requires knowledge of CGMP requirements for the production of clinical-grade proteins and familiarity with industrial bio-reactor operations.

### **Molecular Biologist**

Position open for a scientist with a BS/MS in Molecular Biology or related field. You will provide support for analyzing in process DNA contamination and gene stability during process scale-up. Must be familiar with cDNA conversion, dot blot and Southern analysis and DNA sequencing. Experience with GMP validations is desirable.

*We offer a competitive compensation package and a comprehensive benefits program which includes relocation assistance to a superb upstate NY living area. Interested candidates should submit a resume indicating position of interest, salary history and requirements, in confidence, to:*

*Associate Director, Genetic Engineering—JT.*



**BRISTOL-MYERS SQUIBB COMPANY  
INDUSTRIAL DIVISION — BLDG 58  
P.O. BOX 4755, Syracuse, New York 13221-4755**  
An equal opportunity employer M/F/H/V

## POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY

Position available to study the large-scale organization of eukaryotic chromosomes, focusing on the structure of chromosomes during meiosis in the yeast *Saccharomyces cerevisiae* and using a combination of genetic, molecular and cytological techniques. Those with prior experience or with an interest in chromosome organization, yeast artificial chromosomes, chromosome pairing or meiotic recombination are particularly urged to apply.

Please send letter and curriculum vitae, or call (405) 271-7682.

**Michael E. Dresser, M.D., Ph.D.**  
**Program in Molecular  
and Cell Biology**  
**Oklahoma Medical  
Research Foundation**  
**825 N.E. 13th Street**  
**Oklahoma City, OK 73104**



EOE/Affirmative Action Employer.  
OMRF encourages women and minorities  
to apply.

## POSTDOCTORAL TRAINING PROGRAM IN TUMOR IMMUNOLOGY

**Duke University Medical Center**

Postdoctoral training in immunology is offered at Duke University Medical Center. Fellowships in laboratories conducting cancer related research in molecular immunology, immunogenetics, cellular immunology, transplantation immunology, immunopathology, and autoimmune diseases are available. Fellowships are open to U.S. citizens and foreign nationals with permanent resident visas holding the Ph.D., M.D., or equivalent degrees who have had fewer than three years of postdoctoral experience. Send letters of inquiry to Dr. Frances E. Ward, Postdoctoral Training Coordinator, Department of Microbiology and Immunology, Box 3010, Duke University Medical Center, NC 27710. An equal opportunity/affirmative action employer.

## Ph.D. COMPUTATIONAL CHEMIST

DowElanco, a research-driven world leader in agricultural products headquartered in Indianapolis, is seeking a self-directed, highly creative Computational Chemist to join our Computer Assisted Molecular Design (CAMD) Group. This group is aggressively pursuing all areas of computational chemistry toward the discovery and development of agricultural chemical products.

Utilizing new CAMD techniques, and interacting with a variety of research groups, you'll be involved in small and large molecule molecular modeling, QSAR, Experimental Design, Supercomputing, and Artificial Intelligence. The successful candidate will also help develop effective new computational techniques to apply to the design of bioactive molecules.

We seek a Ph.D. or post-doctoral level chemist with a strong background in at least one area of computational chemistry and a strong interest in other areas of computational chemistry; and the ability to design and implement successful computational chemistry studies. Strong leadership, interpersonal and collaborative skills are essential.

DowElanco offers an outstanding professional environment, an attractive salary, and excellent corporate benefits. For immediate consideration please forward your resume to: Dr. Scott H. Hutchins, R&D Recruitment Manager, DowElanco, 9002 Purdue Road, Indianapolis, Indiana 46268-1189. Resumes must be received by December 1, 1990. An Equal Opportunity Employer.



**DowElanco**

## RESEARCH TOXICOLOGIST

The Upjohn Company, a recognized leader in research, production and marketing of quality pharmaceuticals, invites applications for the position of Research Toxicologist in our Drug Safety Research Group.

As a member of a multi-disciplinary team, this Research Scientist will support and enhance the drug development process in our human and animal health businesses. This scientist will be responsible for the study design, implementation, supervision of study conduct, and the interpretation and reporting of drug safety studies required to characterize the toxicity of drug candidates in multiple laboratory animal species. These studies will support human safety and human food safety with a world-wide emphasis. This person will have excellent planning and organizational skills to conduct long-term (3 to 24 months) animal studies in accordance with GLP guidelines. Excellent written and oral skills are required for preparation of technical reports and numerous personnel interactions. A Ph.D or D.V.M. with Ph.D in Toxicology or related discipline is necessary, as well as strong interest, knowledge and relevant experience in general animal toxicology. ABT certification or eligibility is a plus.

Upjohn offers a competitive compensation and benefits package in addition to a stimulating, multi-disciplinary research environment at our modern laboratories in Kalamazoo, Michigan. You are invited to send your curriculum vitae to: The Upjohn Company, Corporate Recruiting/Code 5707-HA, 7000 Portage Road, Kalamazoo, MI, 49001-0199. Refer to job code 5707-HA in your cover letter. An Equal Opportunity Employer M/F.

OUR COMMITMENT TO SCIENTIFIC EXCELLENCE CONTINUES...

**Upjohn**

## POSITIONS OPEN

### POSTDOCTORAL FELLOWSHIP

An opportunity for research training in respiratory physiology is available at Dartmouth Medical School. Major interests of the seven participating faculty include the control of breathing, adaptation to hypoxia, and comparative respiratory physiology. Send curriculum vitae, a letter describing research interests, and the names and telephone numbers of three references to: **Donald Bartlett, Jr., M.D., Chairman, Department of Physiology, Dartmouth Medical School, Hanover, NH 03756.** Applicants must be U.S. citizens or nonover resident to be eligible for support by NIH training funds. Applications from women and members of minority groups are encouraged.

### GALLAGHER FELLOWSHIP

The Academy of Natural Sciences of Philadelphia is pleased to announce the establishment of the John J. and Anna H. Gallagher Fellowship. This postdoctoral fellowship is for research on the systematics of microscopically invertebrates, with priority for the study of Rotifera. Applications are now being accepted for the first 1-year fellowship, to commence in the fall of 1991. Send curriculum vitae, statement of research interests, and the names of three references to: **Chairman, Gallagher Fellowship Committee, Academy of Natural Sciences, 19th and the Parkway, Philadelphia, PA 19103.** Application deadline is 15 January 1991.

**POSTDOCTORAL FELLOW IN MOLECULAR ENDOCRINOLOGY.** For studies of insulin and IGF-I receptors. Experience in molecular biology or protein chemistry preferred. Send letter, curriculum vitae, and names, addresses, and telephone numbers of three references to: **Dr. Jonathan Whittaker, Department of Medicine, Health Sciences Center, HSCT15, Room 060, State University of New York (SUNY) at Stony Brook, Stony Brook, NY 11794.** SUNY is an Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL AND GRADUATE STUDENT FELLOWSHIPS

The University of Cincinnati College of Medicine offers a modern interdepartmental training program in environmental molecular and cellular carcinogenesis and mutagenesis. Cincinnati is a leading academic and industrial center for environmental studies providing numerous employment opportunities. Experimental approaches within the program include the role of growth factors and oncogenes in cellular transformation, the use of transgenic cells and animals, and molecular toxicology. Participating faculty are: **Dr. Roy Albert** (carcinogenic mechanisms and risk assessment), **Dr. Stuart Baxter** (tumor promotion), **Dr. Michael Lieberman** (growth factors and differentiation), **Dr. John Loper** (P450 systems in yeast), **Dr. Steven Potter** (insertional mutagenesis in transgenic mice), **Dr. Howard Shertzer** (chemoprevention of carcinogenesis), **Dr. Peter Stambrook** (mutagenesis in transgenic cells and mice), **Dr. Edward Stavnezer** (oncogenes and cell transformation), **Dr. James Stringer** (recombination and gene targeting in ES cells), and **Dr. David Warshawsky** (mechanisms of chemical carcinogenesis).

Positions are immediately available and are funded through a national research training program. Applicants must have U.S. citizenship or permanent residency and have completed a Ph.D. degree or equivalent. Candidates should send curriculum vitae and three letters of recommendation to: **Dr. Peter J. Stambrook, Department of Anatomy and Cell Biology, University of Cincinnati College of Medicine, Cincinnati, OH 45267.** An Equal Opportunity/Affirmative Action Employer.

**RESEARCH POSITION.** Available in the Lombardi Cancer Research Center, Georgetown University, to utilize primarily rodent models to study psychosocial aspects of breast cancer growth and progression. The successful applicant will be expected to develop an extramural funded research project and supervise graduate students. Applicants should possess a Ph.D. or equivalent degree and at least 2 years of postdoctoral research experience in behavioral pharmacology or a related field. Experience with animal models of aggression, anxiety, and stress is preferred. Appropriate research skills should be evident from publications in peer-reviewed journals. Send letter of application and curriculum vitae to: **Marc Lippman, M.D., Podium Level, Lombardi Cancer Research Center, 3800 Reservoir Road, N.W., Washington, DC 20007.**

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH ASSOCIATE

Positions available for recent Ph.D.'s to study the mutation, function, and regulation of thymidylate synthase in human cancer cells, and to determine events that influence programmed cell death. Techniques include molecular biology, gene sequencing, protein purification, enzyme kinetics, HPLC, and cell culture. A strong background in molecular biology, biochemistry, or molecular pharmacology is required. Send curriculum vitae and three letters of reference to: **Dr. J. A. Houghton, Department of Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101.** An Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL RESEARCH ASSOCIATE DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF NEBRASKA-LINCOLN

Seek individual to supervise and participate in project directed toward selective syntheses of sucrose monoesters (SME) exploring new synthetic routes for synthesis (both organic chemical and enzymatic approaches) of sucrose monoesters and including the effects of solvent catalyst and surfactants on catalytic rates. Physical parameters will be optimized to give optimum SME production. Structure analysis to focus on describing the position(s) of esterification on sucrose. Requires Ph.D. in chemistry, biochemistry, or related area and expertise in organic synthesis, enzymology, HPLC, GLC, mass spectroscopy, and NMR. Send application, current curriculum vitae, statement of research interest, and two letters of recommendation by 1 November 1990 to: **Dr. Fred W. Wagner, Department of Biochemistry, University of Nebraska-Lincoln, Lincoln, NE 68583-0718.** Telephone: 402-472-2938. FAX: 402-472-4673. Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL RESEARCHERS

The Department of Physiology, University of California, Irvine, is developing a postdoctoral candidate pool for possible openings during the remainder of the 1990-1991 fiscal year. Openings may be available in the following research areas: developmental neurobiology, ion channels in lipid bilayers, physical chemistry of membranes, mechanisms and regulation of steroid hormone biosynthesis, exercise physiology, molecular properties of ion channels in excitable cell membranes, and molecular and electrophysiological aspects of lymphocyte activation. Salary is in accordance with current NIH/NSF postdoctoral stipends which are based upon qualifications and years of prior, relevant postdoctoral experience. *Minorities and women are encouraged to apply.* Send curriculum vitae and names of three references to: **Scott E. Fraser, Chairman, Department of Physiology, University of California, Irvine, CA 92817.**

### ASSISTANT SCIENTIST

Full-time research position to develop an independently funded program focusing on development aspects of retinal gene expression. Ph.D. in biochemistry and/or molecular biology and 1 to 2 years of postdoctoral experience in retinal gene expression is required. Deadline is 1 November 1990. Send research goals, curriculum vitae, and three letters of reference to: **William W. Hauswirth, Ph.D., Professor, Department of Ophthalmology, Box J-284, University of Florida, Gainesville, FL 32610.** Equal Opportunity/Affirmative Action Employer.

### RESEARCH ASSOCIATE

Postdoctoral fellowships available to study the molecular mechanism of tumorigenesis in retinoblastoma. Send curriculum vitae and names of references to: **Dr. Anne T'Ang, Childrens Hospital Los Angeles, 4650 Sunset Boulevard, #67, Los Angeles, CA 90027.** University of Southern California/Childrens Hospital Los Angeles is an Equal Opportunity Employer.

**RESEARCH ASSOCIATE.** Clinical Pharmacology at The Johns Hopkins University School of Medicine. We are seeking an investigator with experience in growing various human pathogenic viruses including HSV, HCMV, and HIV and a strong background in antiviral drug research. Molecular biology experience, especially in the molecular mechanisms of viral replication, is essential. Must have M.D.; Ph.D. preferred. Send curriculum vitae to: **Dr. Paul S. Lietman, 600 North Wolfe Street, Osler 527, Baltimore, MD 21205.**

## POSITIONS OPEN

### RESEARCH ASSOCIATE

Position available 1 December 1990 to study bacterial colonization and adherence to urinary catheters as part of a multi-investigator program directed at urinary tract infection. Requires Ph.D. in microbiology or related area.

Please send application, including curriculum vitae, statement of research goals, and names and addresses of three references, by 26 October 1990 to: **Dr. Madilyn Fletcher, Center of Marine Biotechnology Institute of The University of Maryland, 600 East Lombard Street, Baltimore, MD 21202.** The University of Maryland is an Equal Opportunity/Affirmative Action Employer.

### RESEARCH ASSOCIATE

Research associate position available immediately at Bascom Palmer Eye Institute, Department of Ophthalmology, University of Miami School of Medicine, Miami, Florida, to study molecular aspects of human genetic ocular diseases. Recombinant DNA techniques are primarily used to study retinitis pigmentosa, gyrate atrophy, and retinoblastoma. Applicant should have Ph.D. M.D. Experience in molecular biology preferred but not required. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. George Inana, Associate Professor, Department of Ophthalmology, University of Miami School of Medicine, P.O. Box 016880, Miami, FL 33101.** The University of Miami is an Equal Opportunity/Affirmative Action Employer.

Two positions are available immediately at the level of **RESEARCH ASSOCIATE** (Ph.D. preferred). One project involves the metabolic rate and pharmacokinetics of novel antiviral agents where experience in HPLC separations, methods development, and metabolite identification is sought. The other project is to investigate the molecular action of natural carcinogens where experience in mammalian cell culture, DNA purification and sequencing, hybridization, and similar techniques is needed. Send curriculum vitae and names and addresses of three references. Applications will be accepted until suitable candidates are located. Contact: **Roger A. Coulombe, Jr., Ph.D., Associate Professor, Department of Veterinary Sciences, Utah State University (USU), Logan, UT 84322-4620.** USU is an Affirmative Action/Equal Opportunity Employer.

### RESEARCH ASSOCIATE IN PEDIATRIC UROLOGY

A research associate position is available to study structural and functional problems in pediatric urology. Candidates must have Ph.D., with or without postdoctoral experience, and knowledge in animal physiology, functional pharmacology, and surgical techniques, and some knowledge in molecular biology. Must be able to design/conduct independent studies and help/collaborate with surgical residents during their research rotation. Salary is commensurate with experience and negotiable. Applications, including curriculum vitae and names of three references, should be submitted to: **Curtis A. Sheldon, M.D., Children's Hospital Medical Center, 3300 Elland Avenue, Cincinnati, OH 45229.** Telephone: 513-559-4975. FAX: 513-559-6753.

*Affirmative Action/Equal Opportunity Employer.*

**RESEARCH ASSOCIATE.** Position available to perform purification, identification, and molecular cloning of gene(s) encoding growth-factor proteases from fly and other species. Will design expression vectors for prokaryotic and eukaryotic systems and express those genes by transformation and transfection. Will develop monoclonal and polyclonal antibodies to those proteases for use in immunological assays. Will study how growth factors such as insulin and tumor growth factor- $\alpha$  are degraded by the proteases, and the regulation of cell growth and transformation by this effect. Will use in situ hybridization technique to determine the localizations of these genes. Minimum education requirement of Ph.D. in the field of biochemistry and molecular biology. Education to include 3 years of research in molecular cloning, gene regulation, and mammalian cell culture. Salary: \$27,284 per year including fringe benefits; 40 hours per week, 9 a.m. to 5 p.m. Send résumé to: **Illinois Department of Employment Security, 401 South State Street, Suite-3 South, Chicago, IL 60605.** Attention: Joan Sykustus, Reference #V-IL 1673-S. An employer-paid ad. This is a university position.



# HOWARD HUGHES MEDICAL INSTITUTE

## FELLOWSHIPS FOR BIOLOGICAL AND BIOMEDICAL SCIENCES

The Howard Hughes Medical Institute has established a number of programs that support training in fundamental biological and biomedical research. Awards, based on a national competition each year, focus on research directed to understanding basic biological processes and disease mechanisms. Fellowships may be held at any academic or research institution.

### ■ Predoctoral Fellowships in Biological Sciences

Up to five years of support for full-time graduate study toward the Ph.D. degree in cell biology and regulation, genetics, immunology, neuroscience, and structural biology in addition to biostatistics, epidemiology, and mathematical biology. Applicants must not have completed the first year of postbaccalaureate graduate study in biology. *Application deadline: November 9, 1990.*

### ■ Postdoctoral Research Fellowships for Physicians

Three years of support for training in fundamental research subsequent to clinical training. *Application deadline: March 1, 1991.*

### ■ Medical Student Research Training Fellowships

Support to medical students in the United States for one year of full-time fundamental research. *Application deadline: December 5, 1990.*

### ■ Research Scholars at the National Institutes of Health

Under this joint HHMI-NIH program, medical students in the United States spend an intensive year in research in the intramural program at the NIH in Bethesda, Maryland. Residence is provided at the Cloister on the NIH campus. *Application deadline: January 15, 1991.*

### PROGRAM ANNOUNCEMENTS FOR THE 1991 COMPETITIONS

FOR PREDOCTORAL FELLOWSHIPS:  
Hughes Fellowship Program  
The Fellowship Office  
National Research Council  
2101 Constitution Avenue, N.W.  
Washington, D.C. 20418  
(202) 334-2872

FOR OTHER PROGRAMS:  
Howard Hughes Medical Institute  
Office of Grants and Special Programs  
Department BA91  
6701 Rockledge Drive  
Bethesda, MD 20817  
(301) 571-8412

The Howard Hughes Medical Institute, an Equal Opportunity Employer, welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.

## POSITIONS OPEN

### RESEARCH ASSOCIATE POSITIONS

Research associate opportunities are periodically available with the College of Biological Sciences at the University of Minnesota. Positions may be available in the Departments of Biochemistry; Ecology, Evolution, and Behavior; Plant Biology; and Genetics and Cell Biology. Positions may also be available in the following research programs: Bell Museum of Natural History, Gray Freshwater Biological Institute, Biological Process Technology Institute, Lake Itasca Forestry and Biological Station, and the Plant Molecular Genetics Institute.

These positions are for independent research. To be considered, applicants must possess a Ph.D. or equivalent degree and must secure salary and research support from an external granting agency. Multiple positions may be available, dependent upon space and facilities as well as faculty research interests.

Applications from interested persons must include a personal curriculum vitae, a statement of research interests and experience; names, addresses, and telephone numbers of three references; salary and research support documentation; and specification of departments/programs of interest. Direct application material to:

**Senior Administrative Director**  
College of Biological Sciences  
University of Minnesota  
123 Snyder Hall  
St. Paul, MN 55108

*The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

### TWO POSITIONS

**RESEARCH ASSISTANT PROFESSOR.** Position in the Applied Physics Laboratory, UIC Eye Center, University of Illinois at Chicago. Research development, testing, and application of new instrumentation for the diagnosis and treatment of eye diseases. Requirements: Ph.D. in physics, at least 2 years of experience in applied research, solid knowledge of physiological optics, programming skills in the PC environment, and excellent capabilities in writing scientific material. The candidate will be expected to seek independent funding. Salary compatible with national average for similar qualifications.

**RESEARCH ASSISTANT PROFESSORSHIP.** In ophthalmology (cellular neurobiology of the retina). UIC Eye Center candidates must have a strong background in biophysics, and at least 2 years of postdoctoral training in the application of advanced neurophysiological techniques to the study of transport mechanisms, second messenger systems, and neuron-glia interactions. Preference given to applicants with experience in biochemical and/or ultrastructural methods applicable to these research areas. The candidate would be expected to work in a collaborative setting, with opportunities to develop independent research activities through extramural funding.

Anticipated starting date for both positions is 1 November 1990, and applications should be received by 19 October 1990 to receive fullest consideration. Please send résumé or curriculum vitae and three letters of reference to: John C. McCrosky, Administrator, UIC Eye Center (M/C 648), 1855 West Taylor, Chicago, IL 60612. *The University of Illinois is an Equal Opportunity Employer.*

**POSITIONS AVAILABLE:** (i) **CELLULAR BIOCHEMIST** to study antioxidant stress proteins and their relationship to inducible cellular resistance to oxidative injury in mammalian skin and cultured keratinocytes. Experience in protein isolation, electrophoretic techniques (PAGE, Western, and Northern blotting) desirable. (ii) **TUMOR BIOLOGIST** with at least 3 years of relevant postdoctoral experience. Should be skilled in techniques such as the evaluation of cancer markers, molecular characterization of protein antigens, and tumor cell metabolic pathways. Background in eukaryotic molecular biology and biochemistry highly desirable. Candidates must be interested in photobiology and be eager to work in multidisciplinary collaborative projects and to initiate a vigorous and independent research program. Salary and position will be commensurate with experience. Please send curriculum vitae and names and addresses of three references to: T. Hasan, Ph.D./R.W. Gange, M.D., Wellman Laboratories of Photomedicine, Harvard Medical School, Massachusetts General Hospital, Boston, MA 02114.

## POSITIONS OPEN

### RESEARCH PROFESSOR

Conducts research in synthetic organic chemistry in purines, pyrimidines, nucleosides, and nucleotides; performs techniques for the total synthesis of natural products; conducts and performs the isolation, elucidation, and total synthesis of active principles from herbs; prepares reports and research papers.

Forty hours weekly, 9:00 a.m. to 5:00 p.m.; \$30,000 annual salary.

Requirements: (i) Ph.D. or equivalent in chemistry, (ii) 2 years of experience or education in the techniques for total synthesis of natural products, (iii) experience with anti-cancer and anti-virus chemotherapy research including the synthesis of purines and pyrimidines, and (iv) 2 years of experience in the isolation, elucidation, and total synthesis of active principles from herbs. Please reply with résumé to:

**Maria Teresa Salabert**  
Rhode Island Job Service  
101 Friendship Street  
Providence, RI 02903  
Case Number 58

### RESEARCH ASSISTANT PROFESSOR OR RESEARCH ASSOCIATE

A research position is immediately available to study cardiac isotope transport as laboratory director of the Myocardial Isotope Research Laboratory (NIH-funded) at a medical school center outside Boston, Massachusetts. Candidates should have Ph.D., and experience in cell culture is preferred. The basic laboratory studies include in vitro and in vivo blood-tissue exchange of radionuclides utilizing first-page extraction and quantitative autoradiography. Academic degree and salary commensurate with experience. Send curriculum vitae, description of interests, and list of three references to: **Jeffrey A. Leppo, M.D., Department of Nuclear Medicine, University of Massachusetts Medical Center, Worcester, MA 01655.**

*University of Massachusetts is an Affirmative Action/Equal Opportunity Employer.*

**MOLECULAR BIOLOGIST.** University seeks a research investigator to develop a simian vaccine model for HIV-infection. Experience with culturing lymphocytes from HIV infected individuals, PCR, cloning and sequencing HIV variant strains. Demonstrable evidence of high standard of research achievement in the HIV field. A strong background in molecular biology and virology/immunology is essential. A Ph.D. in biochemistry/molecular biology is required. Salary: \$40,000 per year; 40+ hours per week. To apply, mail two copies of résumé with a copy of this ad or citing Job #9009 to: **Department of Employment Services, 500 C Street, N.W., Room 325, Washington, DC 20001.** *Proof of legal right to work in the United States must be provided.*

### RESEARCH SCIENTIST

Ph.D. experienced in cell biology, molecular biology, and/or protein chemistry wanted for the Division of Pulmonary and Critical Care Medicine in the Department of Internal Medicine at Yale University. Must be willing to participate in sectional programs and have the desire and ability to establish an independent line of investigation. Interest in inflammation, cytokines, and/or matrix is highly desirable. Tenure-track appointment with protected time and resources available for qualified individual. Please send curriculum vitae and three references by 9 November 1990 to: **Elizabeth Malinowski, Assistant Administrator, Yale University, Pulmonary and Critical Care Section, Department of Internal Medicine, 105 LCI Building, P.O. Box 3333, New Haven, CT 06510.** *Yale University is an Affirmative Action/Equal Opportunity Employer.*

### BONUS CIRCULATION FOR YOUR CLASSIFIED AD

Our issue of 16 November 1990 will be distributed to scientists attending the meeting of the American Society for Cell Biology (ASCB) in San Diego, California, 9 to 13 December 1990. Deadline for submission of line classified ads: 1 November 1990.

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

## POSITIONS OPEN

### NATIONAL HEART, LUNG, AND BLOOD INSTITUTE (NIH)

The Laboratory of Cell Biology, National Heart, Lung, and Blood Institute, invites applications for a position as **COLLABORATIVE SCIENTIST, GS-12** (salary range: \$35,000 to \$45,000). The overall emphasis of the laboratory is the understanding of the molecular basis of cell motility, using a combination of biochemical, cell biological, and molecular genetic approaches. The applicant must hold a Ph.D. and/or M.D. degree or equivalent experience and have at least 3 years of relevant postdoctoral experience. We are seeking an individual with broad experience in protein purification and molecular genetic techniques, as well as in the analysis of cell motility by video-enhanced microscopy. A thorough understanding of the cell biology of *Dictyostelium*, including transformation and phenotype analysis, would be very beneficial. Send curriculum vitae and three letters of recommendation to: **Dr. John Hammer, Laboratory of Cell Biology, Building 3, Room B1-22, National Institutes of Health, Bethesda, MD 20892.** *NIH is an Equal Opportunity Employer.*

### PLANT SCIENTIST

Immediate opening for a plant scientist to support research and development activities related to the Controlled Ecological Life Support System Program at Kennedy Space Center. Ph.D. with minimum of 3 years of experience in greenhouse or growth chamber work related to crop science or biomass production required. Experience in crop physiology, agroecology, agronomy, plant nutrition, plant physiological ecology, or other related areas is preferred. Work with interdisciplinary team of engineers/scientists in operation and maintenance of a large closed plant growth chamber used in study of bioregenerative processes for food production and recycling of water, oxygen, and carbon dioxide. Submit résumé to: **Personnel, The Bionetics Corporation, BIO-1, Kennedy Space Center, FL 32899**, by close of business 9 November 1990. *Equal Opportunity Employer, M/F/H/V.*

### ASSISTANT RESEARCH SCIENTIST ELECTRON PARAMAGNETIC RESONANCE SPECTROSCOPY IN BIOLOGICAL MATERIAL

A Ph.D.-level assistant research scientist (tenure-track, fiscal year appointment) is sought by the Department of Botany at Arizona State University. Expertise in EPR spectroscopy with biological systems is required, and experience with ENDOR is preferred. The successful candidate is expected to develop an independent research program compatible with current research emphases within the department. In lieu of formal teaching obligations, responsibilities will include user training and maintenance of the newly acquired EPR spectrometer with ENDOR capabilities. Applicants should submit curriculum vitae and a statement of research interests, and have three letters of reference sent to: **Wim Vermaas, Search Committee Chair, Department of Botany, Arizona State University, Tempe AZ 85287-1601.** Telephone: 602-965-3698; FAX: 602-965-2012. The application deadline is 30 November 1990, or the 30th of each month thereafter until the position is filled. *Affirmative Action/Equal Opportunity Employer.*

**VIROLOGIST/MOLECULAR VIROLOGIST.** The Oregon Regional Primate Research Center is seeking two innovative investigators at the **ASSISTANT OR ASSOCIATE SCIENTIST** level to develop independent research programs focused on nonhuman primate animal models for AIDS. Applicants must have a doctoral degree, postdoctoral experience, and demonstrable potential for, or a previous record of, extramural funding. Research interests and experience in applying molecular approaches to simian or human immunodeficiency retrovirus pathogenesis and vaccine strategies are desirable. Joint academic opportunities are available at the nearby Oregon Health Sciences University, Portland, Oregon. The level of appointment will be contingent on the applicant's qualifications, with advanced levels requiring a strong record of publication and grant support. Applicants should submit curriculum vitae and four professional references by 15 November 1990 to: **Michael K. Axthelm, D.V.M., Ph.D., Chair, Search Committee, Oregon Regional Primate Research Center, 505 N.W. 185th Avenue, Beaverton, OR 97006.** Telephone: 503-690-5236. *Affirmative Action/Equal Opportunity Employer.*



## FELLOWSHIP PROGRAMS UNITED STATES-ISRAEL

BARD, The United States-Israel Agricultural R&D Fund, announces two fellowship programs promoting cooperative agricultural research.

The first Program, established in 1985, is between postdoctorate fellows from the United States and scientists from Israel and vice versa. Grant applicants should be citizens of either the U.S. or Israel, and should have fulfilled the requirements for a Ph.D. degree within the last three years (postdoctorates).

The duration of each Postdoctorate Fellowship will be determined by the selection committee which may approve a period of up to two years in the host country, with the possibility of a third year in the awardee's home country.

The Postdoctorate Fellowship grant will be paid directly to the grantee. Each grantee will be awarded a grant of \$25,000, to cover travel expenses and living during the first year. The grant for possible subsequent years will be \$23,000. If necessary, a small allowance, not to exceed \$3,000, will be paid to the institution for operating expenses for the proposed research.

A Research Fellows provision is incorporated into the Program this year. U.S. citizens who are established research scientists in American non-profit research institutions, universities or federal and state agencies are eligible to become Research Fellows. Research Fellows will be funded for a period of 4 to 12 months with a grant of \$25,000 on a 12 month basis to cover travel and modest living expenses.

For information on application procedures please contact BARD offices at either:

BARD	BARD
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Room 107, Bldg. 005, BARC-West	P.O.B. 6
Beltsville, MD 20705	Bet Dagan
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Tel: 301-344-2605	Tel: 972-3-9655133
Fax: 301-344-3298	Fax: 972-3-9662506

## CONFERENCE RESCHEDULED

### CONFERENCE ON CHEMICAL RISK ASSESSMENT IN THE DoD: SCIENCE, POLICY, AND PRACTICE

Due to lack of a resolution of the Congressional budget problems as well as recent events in the Middle East, the DoD conference on risk assessment planned for October 16-18, 1990 in Dayton, Ohio has been postponed. **The conference has been rescheduled for April 9-11, 1991.**

This conference will be sponsored by the Air Force Harry G. Armstrong Aerospace Medical Research Laboratory, the Naval Medical Research Institute Detachment (Toxicology), and the Army Biomedical Research and Development Laboratory, with the cooperation of the National Research Council Committee on Toxicology.

The goals of the conference are to promote exchange of information between those who develop risk assessment methodologies and those who perform risk assessment. Although the conference will focus on DoD applications, the discussions should be applicable for all practitioners of risk assessment. The conference will feature invited presentations by noted individuals in the field and a poster session for studies relevant to the conference theme. Individuals interested in presenting a poster at the April conference (who have not previously submitted an abstract for the October conference) should contact Ms. Lois Doncaster, Conference Coordinator. **Abstracts must be received by January 15, 1991.**

To obtain further information, contact Ms. Lois Doncaster, Conference Coordinator, NSI Technology Services Corporation, 101 Woodman Drive, Suite 12, Dayton, Ohio 45431 (513, 258-1150).

## BROOKHAVEN NATIONAL LABORATORY

# Medical Physicist

The Cyclotron-PET Program at Brookhaven National Laboratory is seeking a Medical Physicist to oversee PET operations for the clinical and research projects. Applicants must have a Ph.D. in Medical Physics or equivalent background. Experience with PET instrumentation, the VAX/VMS operating system and UNIX would be helpful. Skills in programming, statistical analysis and mathematical modeling are also desirable. This is a key position in the group and one which requires an involvement at both the clinical and research level, since obtaining high quality PET measurements is central to both the clinical and research programs. The position involves supervising technicians in daily routine PET operations as well as physics support for the clinical and research studies including assuring instrument calibration and performance, quality control, and implementing new software and work station operations as new research protocols and radiotracers are developed. Although the major focus of the position is to oversee PET operations, an active involvement in the research of the group as well as development of new techniques for accurate quantitation and

analysis of images may be concurrently pursued and is often required as new problems arise.

This is a multidisciplinary group where new tracers are being developed and studied with PET and where *in vivo* imaging in animals is undertaken with a special attention to the quality of the PET measurement and the mechanistic biochemistry underlying the kinetic and spatial properties of the image. Instrumentation includes a CTI/931 whole body high resolution tomograph associated microvax computer, Sun workstation, Macintosh II and other computers. The PET facility also houses an operational PET VI brain tomograph and a small blood analysis laboratory, and is adjacent to two cyclotrons and a chemistry laboratory dedicated to radiotracer research and development.

Interested candidates should send resume and the names of three references to: Dr. Alfred P. Wolf, Chemistry Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, NY 11973. Equal opportunity employer M/F.

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## POSITIONS OPEN

### A SYMPOSIUM ON BIOGEOCHEMISTRY OF WETLANDS

To be held at Louisiana State University in Baton Rouge, 10 to 13 February 1991. Topics to be included are: nutrient cycling in wetlands, plant-soil interactions in wetlands, toxic heavy metal behavior in wetlands, reactions of toxic organics in wetlands, the use of wetland biogeochemical processes to characterize regulatory wetlands, and the role of wetlands in improving water quality. Persons interested in making a presentation or attending the symposium should contact: **William H. Patrick, Jr., Laboratory for Wetland Soils and Sediments, Louisiana State University, Baton Rouge, LA 70803. Telephone: 504-388-8806. FAX: 504-388-6423.**

### A SYMPOSIUM ON COMPUTATIONAL BIOLOGY

Sponsored by the W. M. Keck Center for Computational Biology, a joint Center of Baylor College of Medicine and Rice University. Saturday, 17 November 1990, at Inn on the Park, Houston, Texas. Speakers include Axel Brunger, Yale University; Russell Doolittle, University of California, San Diego; Danny Hillis, Thinking Machines, Inc.; Michael Levitt, Stanford University; and Arthur Olson, Scripps Clinic. Poster sessions. Persons interested in additional information should contact: **Lila K. Lerner, Office of Continuing Education, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. Telephone: 713-798-6020.**

### THE SINGLE CELL GEL (SCG) WORKSHOP 12 to 14 NOVEMBER 1990 INTEGRATED LABORATORY SYSTEMS RESEARCH TRIANGLE PARK NORTH CAROLINA

The SCG assay is a recently developed microelectrophoretic technique for the sensitive detection of intercellular differences in DNA damage and repair using small samples of individual cells. The workshop will include both seminars and hands-on demonstrations of *in vitro*, *in vivo*, and human applications. Cost: \$525.

Contact: **Integrated Laboratory Systems, Genetic Toxicology Department, Raymond Tice, Director, P.O. Box 13501, Research Triangle Park, NC 27709. Telephone: 919-544-4589**

### Announcing a national symposium on INNOVATIONS IN ANTIVIRAL AGENTS AND THE DETECTION OF VIRUS INFECTIONS

15 and 16 November 1990. Adams Mark Hotel, Philadelphia. Featured Speakers: B. Fields, M. Hirsch, M. Rosenberg, E. Berger, M. Ellis, T. Smith, H. Rotbart, J. Sninsky, R. Colonna, F. Dutko, R. Grafstrom, J. Taylor, P. Martin, K. Rinehart, E. Cantin, V. Merluzzi, J. Chafouleas, and S. Marlin. This meeting will consider advances and novel approaches to AIDS, herpes, and hepatitis therapy and detection. Emphasis on novel antiviral targets and detection tests (e.g., PCR, DNA probes). CEU credit. Sponsor: Eastern Pennsylvania American Society for Microbiology. Cost: \$195.

Call: **Dr. T. Block, telephone: 215-955-7952; FAX: 215-955-7771. Write: Dr. J. Bartola, Pennsylvania Department of Health, P.O. Box 500, Exton, PA 19341-0500. Poster presentations are invited.**

## COURSES AND TRAINING

### MOLECULAR ENDOCRINOLOGY AND TECHNIQUES FOR HORMONE ACTION 16 to 21 February 1991

This COURSE will consist of lectures in methodology with comprehensive syllabus covering receptors, gene transcription, mRNA and protein synthesis, recombinant DNA, protein hormones, and cyclic nucleotides.

Co-directors: **M. R. Hughes and B. W. O'Malley**  
Fee: \$365 (\$245 for fellows and students)  
For further information contact:

**Bonnie Cuthbert**  
Department of Cell Biology  
Baylor College of Medicine  
Telephone: 713-798-6200  
Deadline: 4 February 1991

## POSITIONS OPEN

### GRADUATE STUDIES IN BIOCHEMISTRY AND MOLECULAR BIOLOGY DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF ILLINOIS AT CHICAGO

Graduate fellowships or assistantships are provided for all students in the program. Research interests include molecular biology and genetics (development and differentiation), signal transduction (hormone action, vision, protein kinases), protein engineering (enzyme active sites and modification), and molecular medicine (heart disease, cancer, muscular dystrophy). For further information and applications, please write or call: **Graduate Admissions Committee, Department of Biochemistry (M/C 536), University of Illinois College of Medicine, 1853 West Polk Street, Chicago, IL 60612. Telephone: 312-996-7670. FAX: 312-413-0364.**

### POSTDOCTORAL TRAINING POSITIONS

Postdoctoral training opportunities are regularly available with the College of Biological Sciences at the University of Minnesota. Positions may be available in the Departments of Biochemistry; Ecology, Evolution, and Behavior; Plant Biology; and Genetics and Cell Biology. Positions may also be available in the following research programs: Bell Museum of Natural History, Gray Freshwater Biological Institute, Biological Process Technology Institute, Lake Itasca Forestry and Biological Station, and the Plant Molecular Genetics Institute.

The Ph.D. degree or equivalent is required and should have been obtained within the past 3 years. Appointment is limited to 3 years.

The college maintains a file of applicants for postdoctoral associate positions for the current fiscal year from 1 July 1990 through 30 June 1991. All applications are reviewed when each position is established. Applications from interested persons must include a personal curriculum vitae; a brief statement of research interests and experience; names, addresses, and telephone numbers of three references; and specification of departments/programs of interest. Direct application material to:

**Senior Administrative Director  
College of Biological Sciences  
University of Minnesota  
123 Snyder Hall  
St. Paul, MN 55108**

*The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

## ANNOUNCEMENTS

### AFRICAN MONTANE ECOLOGY RESEARCH FUNDS AVAILABLE NOW

Two grants totaling \$30,000 per year, through 1993, are available for basic and applied field research on the ecology of African montane ecosystems. Applications welcomed from qualified agriculturalists, botanists, climatologists, ecologists, geographers, geologists, zoologists, etc. Applicants should have at least the equivalent of a bachelor's degree. Grants tenable at Karisoke Research Centre in Virunga Volcano region of Rwanda. For further details, inquire with stamped, addressed envelope to: **AME Programme, The Digt Fund, 45 Inverness Drive East, Englewood, CO 80112.**

### 1991 MARKEY FELLOWSHIPS

Applications are invited from Ph.D.'s in the biological and biomedical sciences for summer research fellowships at the Mount Desert Island (MDI) Biological Laboratory, internationally renowned facility for comparative physiology and marine biology. Applicants should have several years beyond completion of the doctorate and evidence of independent research. The fellowships, sponsored by the Lucille P. Markey Trust, are based on individual needs and can include salary as well as laboratory space, housing, funds for supplies, and travel. Applications may be obtained by calling the office at 207-288-3605 or writing to: **MDI Biological Laboratory, Department LPM, P.O. Box 35, Salsbury Cove, ME 04672. Deadline for completed applications is 11 January 1991.**

**SCIENCE** welcomes placement of line classified ads by FAX. Please include name and telephone number for our confirmation call when transmitting ad to:

**FAX NUMBER: 202-682-0816**

## POSITIONS OPEN

### 1991 PEW SUMMER FELLOWSHIPS FOR UNDERGRADUATE FACULTY AND STUDENTS

The Mount Desert Island (MDI) Biological Laboratory internationally renowned facility for comparative physiology and marine biology, and the Pew Charitable Trusts have established a summer program designed to enhance undergraduate education in the biological sciences. Fellowships are awarded in three categories:

- Faculty member with Ph.D. actively teaching biology at the undergraduate level.
- Undergraduate student with minimum of 1 year of both biology and chemistry.
- Faculty/student pair with same qualifications as above.

Awardees may work from 1 to 4 months at the MDI Biological Laboratory with senior scientists or, in the case of faculty or faculty/student pairs, may choose to work independently. Funding provides for housing, travel, research costs, and salary: maximum faculty award is \$14,000 with up to \$6,000 salary; maximum student award is \$6,900 with up to \$2,400 salary. Applications may be obtained by calling the office at 207-288-3605 or writing to: **MDI Biological Laboratory, Department PCT, P.O. Box 35, Salsbury Cove, ME 04672. Deadlines for completed applications is 10 December 1990.**

## SITUATIONS WANTED

**EDUCATOR/Ph.D. MICROBIOLOGIST**, strong in humanities, seeks transdisciplinary or honors program at teaching-oriented college, university. Laboratory animal experience (D.V.M.). **Box 115, SCIENCE.**

**FLOW CYTOMETRIST**, Ph.D. Established scientist with numerous publications, broad experience including clinical. Seeks industry, clinical, or academic. Will consult part time. **Box 105, SCIENCE.**

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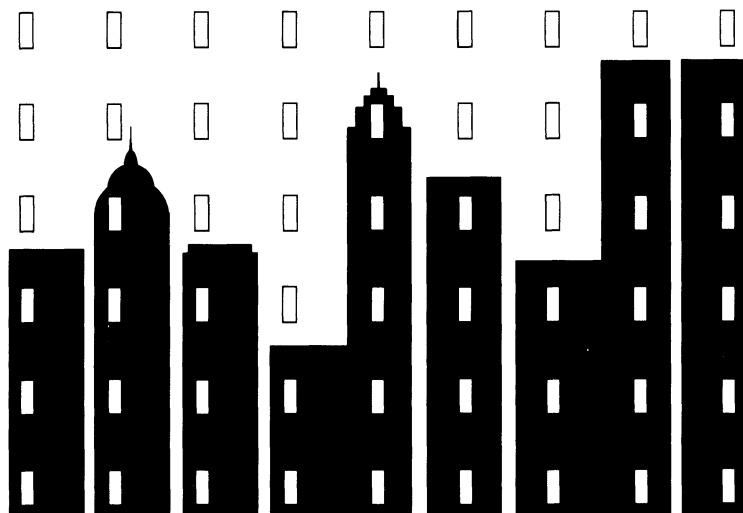
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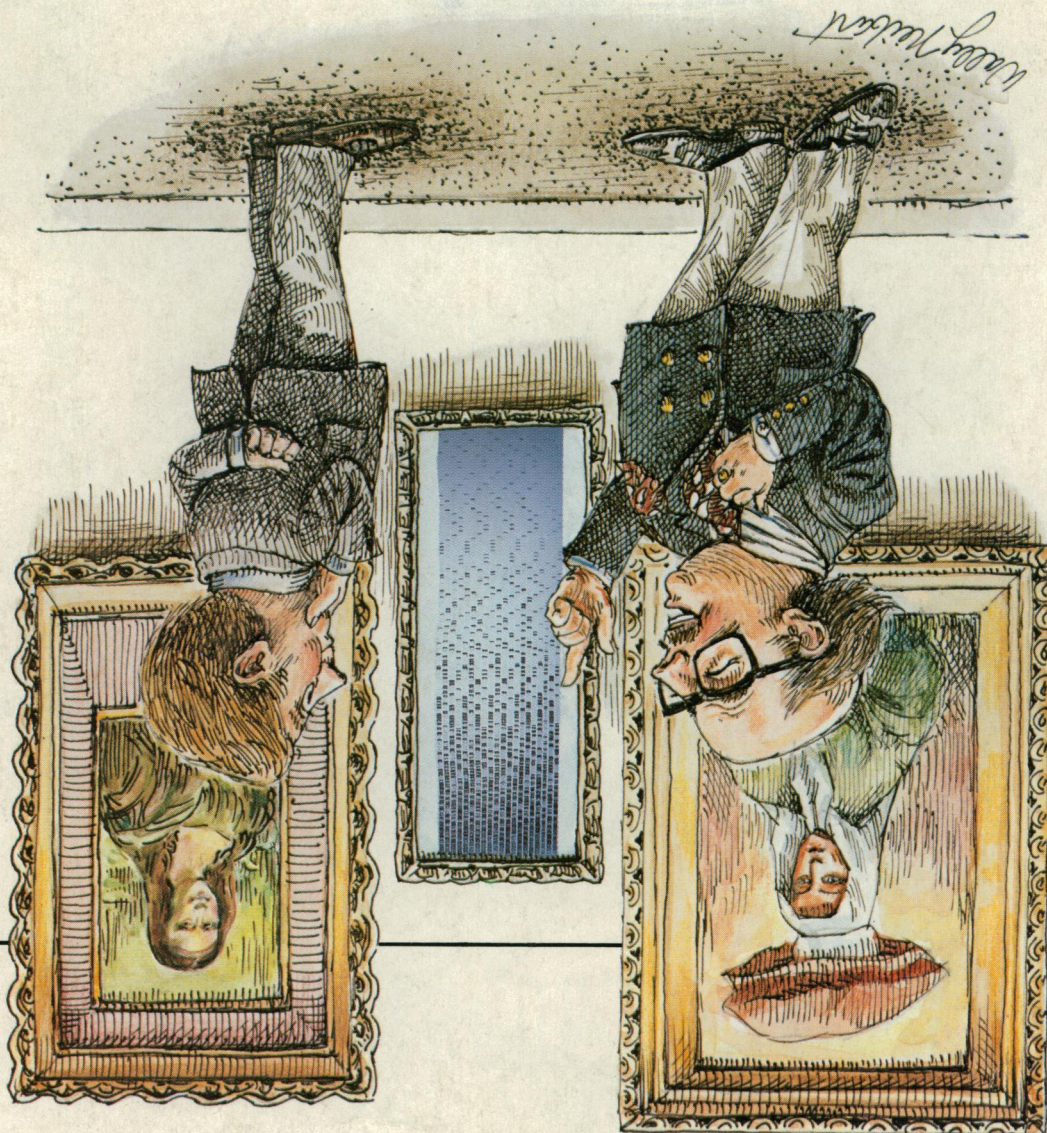


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