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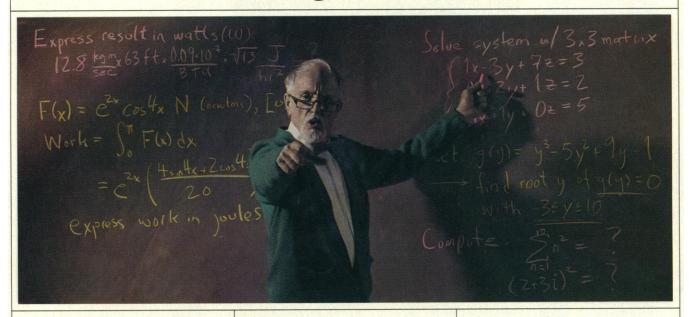
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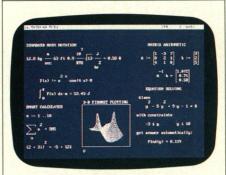
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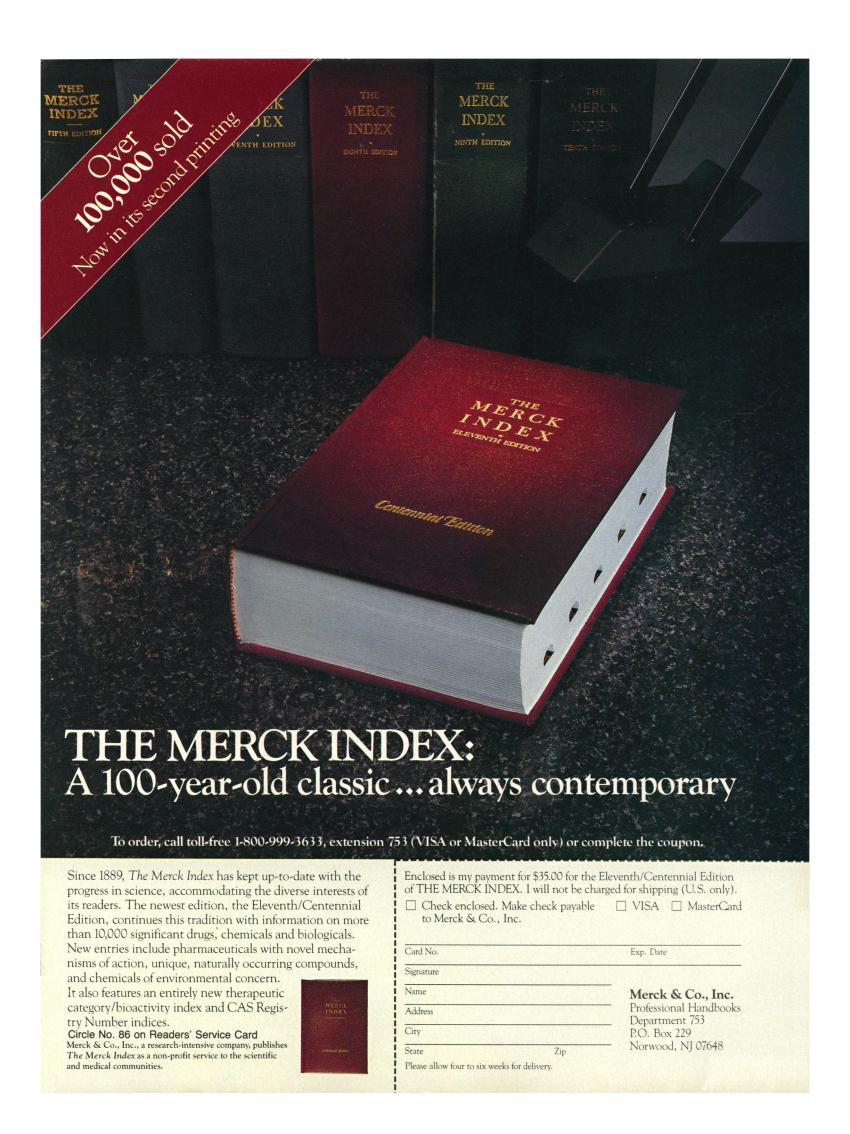
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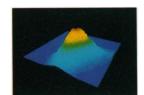
# Last Year, This Is How They Won The IBM Supercomputing Competition.



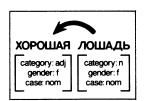
lst Place: Gas dynamics and star formation in merging galaxies. Kevin M. Olson, University of Massachusetts.



lst Place: 3-D reconstruction of cochlea structure. Carl S. Brown and Alan C. Nelson, University of Washington.



lst Place: Stretching and bending of material surfaces in turbulence. Stephen B. Pope and Sharath Girimaji, Cornell University; Pui-Kuen Yeung, Pennsylvania State University.



lst Place: A dependency parser for variable word order languages. Michael A. Covington, University of Georgia.

# This Year, This Is How You Can.

| For information and an entry form, write to:<br>Supercomputing Competition Administrator<br>IBM Corporation<br>36 Mill Plain Road, Suite 404<br>Danbury, CT 06811 |       |     |     |
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# Call For Papers

Last year, the response was overwhelming. So this year, the IBM Supercomputing Competition, with a new division, returns.

Created to discover, acknowledge and reward gifted American and Canadian scientists and engineers, this prestigious competition honors those whose papers describe innovative approaches to large-scale analysis and modeling.

Each paper must describe work using an IBM 3090™ Supercomputer and/or the paper must describe distributed or cooperative processing in which IBM technical workstations are linked to IBM mainframes.

The papers will be judged in five divisions: Physical Sciences and Mathematics; Engineering; Life and Health Sciences; Social Sciences, Humanities and the Arts; and Computer Sciences—Distributed and Cooperative Processing (new division). Each division will receive a first, second and third prize of \$25,000, \$15,000 and \$10,000, respectively. Also, a "PROCEEDINGS" of selected papers will be published.

Contestants must register an abstract of their paper by October 16, 1990. Those who have registered their abstracts must forward their papers by January 15, 1991.

To select winners, IBM will retain a panel of independent authorities in each division. Winners will be announced by March 30, 1991.

For more information, contact your IBM marketing representative or call the IBM Supercomputing Competition Administrator at (203) 794-1355, FAX: (203) 792-7507 in the U.S.; (416) 758-4136 in Canada.



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### RNA Extraction Kit

REX RNA Extraction Kit is designed for the extraction of RNA from up to 10 g of tissue or cultured cells. The kit provides all the ribonuclease-free reagents needed. REX includes an additional extraction step, lacking in most kits, that results in a more highly purified RNA fraction. United States Biochemical Corp. Circle 451.

# Data Acquisition and Control Family

The MEDIAN 500 series for computer data acquisition and control consists of a modular family of boards and systems, hybrid analog and digital input-output modules, screw-termination units, and software support packages. Plug-in boards are available for IBM PC, IBM PS/2, DEC MicroVAX, DEC MicroPDP11, and MULTI-BUS computers, while other units provide stand alone and distributed capability for RS-232, RS-422 (RS-485), and IEEE-488 (GPIB) architectures. The plug-in Micro-MEDIAN modules allow the user to customize each MEDIAN 500 system to meet application requirements. The user simply selects the appropriate modules and plugs them into a module carrier board. DIAN Micro Systems, distributed by InterCon. Circle 453.

### DNA Blots

BIOS EVO Blots are Southern (DNA) blots that enable a researcher to determine the evolutionary relatedness of a DNA sequence among various animal species, lower eukaryotes, and prokaryotes. When a probe is hybridized to these blots, genes that are conserved will give similar hybridization signals, whereas sequences that share less homology will give weaker signals or no signals at all. There are four kinds of EVO Blots: Vertebrate Blot, Mammalian Blot,

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.

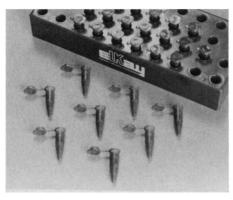
Primate Blot, and Genetic Model Blot. The Vertebrate Blot contains DNA from fish, frog, toad, chicken, and human. The Mammalian Blot contains DNA from cat, dog, rabbit, cow, sheep, mouse, rat, hamster, pig, marmoset, and human. The Primate Blot contains DNA from orangutan, chimpanzee, gorilla, marmoset, macaque, and human. The Genetic Model Blot includes DNA from bacteria, yeast, nematode, fly, frog, sea urchin, mollusk, crustacean, mouse, and human. BIOS Corp. Circle 457.

### Decalcifying Solutions

Decalcifying solutions remove lime from hard tissues such as spines, skulls, and teeth, softening them and making them more workable. Decalcifying Solution A is an acid solution that works rapidly, but may not maintain complete integrity of the tissue. Decalcifying Solution B is a neutral solution that decalcifies slowly but maintains the integrity of tissues. Wako Chemicals USA. Circle 458.

### Amber Microcentrifuge Tubes

Amber-colored microcentrifuge tubes protect samples that are sensitive to ultraviolet light. The tubes filter out 99.8% of ultraviolet light between 290 and 400 nm. Molded from virgin polypropylene, they are



chemical-resistant and autoclavable at 130°C. An integral plug cap provides a complete seal. Molded-in graduations indicate nominal volume. The flat cap contains a frosted write-on area for sample identification. Elkay. Circle 455.

### Laser Cytometer

The ACAS 570 Interactive Laser Cytometer provides an overlay map of fluorescence and phase images identifying the location of the fluorescent probe with respect to the

phase image. This capability can be used with the full range of ACAS programs for quantitative fluorescence imaging and analysis. Fluorescence and phase images can be merged for such applications as transient Ca<sup>2+</sup> and pH, dual-label image analysis, in situ hybridization, transfected cell selection, intercellular communications, and confocal fluorescence measurements. The ACAS is a multipurpose instrument designed for the fluorescence analysis and sorting of cells in culture. Targeted laser illumination provides reproducible, quantitative assays for cellular biochemical and physical activities ranging from membrane receptor mobility to cytosolic Ca2+. Meridian Instruments. Circle

### Monoclonal Antibodies

T4 and T8 (CD4 and CD8, respectively) monoclonal antibodies area available individually, conjugated to fluorescein isothiocyanate and RD1, and as dual-color CYTO STAT/COULTER CLONE T4-RD1/T8-FITC. The dual-color configuration simultaneously identifies and enumerates the percent of T4<sup>+</sup> and T8<sup>+</sup> cells when used in surface marker antigen assays. Coulter. Circle 461.

### Literature

Fisher LabExpo is a catalog of recent developments in a broad range of basic laboratory apparatus and supplies. The emphasis is on design innovations that bring new effectiveness to familiar laboratory products, from a new microcentrifuge tube that opens easily even with gloves on to an advanced timer that remembers times of previous tests. Fisher Scientific. Circle 482.

Scientific Software Solutions is a 61-page catalog of data, graphics, statistical, and other software for personal computers. Pacific Ease Co. Circle 483.

Sequences is a newsletter from Schleicher & Schuell on transfer and immobilization technology. A recent issue addresses the following subjects in solid-phase transfer technology: the Houston blot, a nondestructive enzyme product blot assay, a Centrex method for isolating polyadenylated RNA, and a comparison of vacuum baking and ultraviolet cross-linking for nucleic acid immobilization. Schleicher & Schuell. Circle 484.

Model 3200 MultiSample SFE provides information on a new supercritical fluid extractor. The unit can automatically analyze up to six samples at a time. Computer Chemical Systems. Circle 495.

# 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.

### LINE CLASSIFIED ADVERTISEMENTS

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

POLICIES: All classified ads will be edited and typeset according to SCIENCE style guidelines. NO ABBREVIATIONS. Any deadline for applications stated in ad must be at least 2 weeks after date of publication.

CLASSIFICATION: SCIENCE publishes line classified ads under the following headings: Positions Open, Employment Agencies, Situations Wanted, Courses and Training, Meetings, Announcements, and Marketplace. Advertisers should specify classification desired; however, SCIENCE reserves the right to decline classification requests which it believes may be misleading to readers. ing to readers

Ing to readers.

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 52-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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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.

To reply to a blind box ad, address correspondence to

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#### **POSITIONS OPEN**

#### ANATOMIST

Anatomy department is seeking an anatomist whose primary responsibility will be to teach gross anatomy. Additional responsibilities may include teaching courses in either histology and embryology or neuroanatomy. A Ph.D. or equivalent background is preferred. Qualified applicants should submit a résumé to: Director of Basic Sciences, Cleveland Chiropractic College, 6401 Rockhill Road, Kansas City, MO 64131. An Affirmatica Atlant (European Construir European Construir Europe mative Action/Equal Opportunity Employer.

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 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.

The Department of Molecular Biology at Princeton University invites applications for a tenure-track position at the ASSISTANT PROFESSOR level from investigators who use the mouse as an experimental system. Areas of specialization may include (but are not restricted to) immunology, genetics, neurobiology, developmental biology, chromosome structure, or genome analysis. Candidates should have a Ph.D. degree and appropriate experience in mouse molecular biology. Applicants should send curriculum vitae, a summary of research interests, and the names of at least three referees to:

#### Mouse Molecular Biology Search Committee Department of Molecular Biology Princeton University Princeton, NJ 08544

Application deadline is 20 October 1990.

Princeton University is an Equal Opportunity/Affirmative Action Employer.

### ASSISTANT PROFESSOR MOLECULAR IMMUNOLOGY

The Department of Microbiology and Immunology, Baylor College of Medicine, invites applications for a tenure-track faculty position in molecular immunology. We seek an individual of exceptional capabilities with a strong postdoctoral training record and substantial re-search productivity in molecular biology and/or molecu-lar immunology. The candidate should be determined to establish a strong independent research program and should welcome collaborative interactions with department colleagues in T lymphocyte immunoregulation. ment colleagues in T lymphocyte immunoregulation, MMC structure, function, and genetics. Interested applicants should send curriculum vitae, a brief description of research plans, and names of three references to: Dr. Robert R. Rich, Department of Microbiology and Immunology, M929, Baylor College of Medicine, Houston, TX 77030. Applications received before 31 October 1990 will receive preference in review. Baylor College of Medicine, the English of Consequing Afficience Associations of the College of Medicine and English of the College of Medicine. College of Medicine is an Equal Opportunity/Affirmative Action Employer.

### ASSISTANT PROFESSOR IN PLANT DEVELOPMENT AT UNIVERSITY OF ILLINOIS, CHICAGO

Applications are invited for a tenure-track position available beginning fall of 1991 at the assistant professor level in the Department of Biological Sciences. Candidates with expertise in any aspect of plant development in either higher or lower plants will be considered. Preference will be given to candidates with one or more years of postdoctoral experience. The successful applicant will be expected to initiate a strong research program in plant development and to contribute to the departmental instructional offerings. Please send curriculum vitae, a statement of research goals, and the names and addresses of three referees to:

Plant Development Search Committee c/o Dr. Sidney B. Simpson, Jr., Head Department of Biological Sciences (M/C 066) The University of Illinois at Chicago Box 4348 Chicago, IL 60680

Applications will be accepted until 15 October 1990. The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.

### **POSITIONS OPEN**

ASSISTANT PROFESSOR UNIVERSITY OF PENNSYLVANIA SCHOOL OF MEDICINE DEPARTMENT OF ANATOMY AND PENNSYLVANIA MUSCLE INSTITUTE

A tenure-track assistant professor position is being jointly offered by the Pennsylvania Muscle Institute and the Department of Anatomy of the University of Pennsylvania School of Medicine. The successful candidate will be expected to establish an extramurally funded research program using a molecular biological approach to study either gene regulation in muscle (preferred emphasis on development) or contractile protein structure/function relationships. The position will also involve the teaching of medical students (e.g., cell and tissue biology) and participation in the training of graduate students and postdoctoral fellows.

Application deadline is 31 October 1990. Send curriculum vitae and three letters of recommendation to: Search Committee, c/o Dr. Yale Goldman, Director, Pennsylvania Muscle Institute, University of Pennsylvania School of Medicine, 37th and Hamilton Walk, Philadelphia, PA 19104-6085.

The University of Pennsylvania is an Equal Opportunity

ASSISTANT PROFESSOR POSITION. The Psychology Department at Indiana University-Blooming ton anticipates a tenure-track appointment for the fall of 1991 in behavioral neuroscience. We are especially interexted in candidates at the assistant professor level, though excellent candidates at any level will be considered. Candidates must possess a Ph.D. and have at least 2 years of postdoctoral training. Candidates are expected to pursue active research programs, seek extramural funding, and contribute to the university's program in neural science. Applications received before I November 1990 will be assured of consideration. Submit curriculum vitae, reprints and/or preprints, a description of current research interests and future directions, and arrange for three letters of reference to be forwarded to: Professor M. J. Intons-Peterson, Department of Psychology, Indiana University, Bloomington, IN 47405. Applications from women and minority members are specifically encouraged. Equal Opportunity/Affirmative Action Employer.

### MOLECULAR MICROBIOLOGY POSITIONS

Applications are invited for two tenure-track positions at the rank of ASSISTANT PROFESSOR in microbiology at the University of Arkansas. Successful candidates will have expertise in the molecular aspects of either humoral immunity, mutagenesis, anaerobic physiology, or microbial pathogenesis, and will teach B.S., M.S., and Ph.D. microbiology majors. Candidates must have a demonstrated record of research and a strong potential to develop an externally funded research program. Applica-tions will be reviewed beginning 1 November 1990. Submit curriculum vitae, statement of teaching and research goals, and three letters of reference to: Dr. D. E. Talburt, Department of Microbiology, University of Arkansas, Fayetteville, AR 72701. The University of Arkansas is an Affirmative Action/Equal Opportunity Employer.

### NEUROANATOMIST

The Department of Anatomy, University of Saskatchewan, invites applications for a limited term appointment from 1 December 1990 to 30 June 1992 at the rank of **ASSISTANT PROFESSOR**. The successful candidate will be responsible for teaching neuroanatomy to physical therapy and medical students, and, ideally, will participate in teaching medical histology. Research in the candidate's field of interest will be encouraged. *In accord*ance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents. However, please note that the Free Trade Agreement between Canada and the United States could facilitate the employment of American citizens on a temporary basis in academic positions.

An application, including curriculum vitae, names of three referees, and an outline of previous teaching experience, should be submitted to:

> Dr. G. D. Burkholder Department of Anatomy College of Medicine University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N OWO

The deadline is 1 November 1990.

The Applied Mechanics Division of the Mechanical Engineering Department of Stanford University announces an opening for a tenure line faculty position at the ASSISTANT PROFESSOR level. Interested applicants should have strong teaching and research interests in the mechanics of deformable solids including (but not restricted to) elasticity, inelasticity, continuum mechanics, micromechanics and defect mechanics, fracture, wave propagation, and applied mathematics.

Applicants should submit a current résumé and a list of

Applicants should submit a current résumé and a list of publications by 31 January 1991 to:

Professor C. R. Steele Chairman, Search Committee Division of Applied Mechanics Durand Building Stanford University Stanford, CA 94305–4040

Stanford University is an Equal Opportunity/Affirmative Action Employer and especially encourages applications from interested minority and female candidates.

Applications are invited for an ASSISTANT PROFESSOR position starting 1 October 1990. Applicant should have an M.D. or Ph.D. degree in pharmacology, biochemistry, or related discipline and must have a minimum of 3 years of postdoctoral experience in lipoprotein metabolism/receptor research, recombinant DNA technology, and culture of eukaryotic cells; in particular, embryonic stem cells. The successful candidate will work in association with a team involved in the elucidation of mechanisms for cellular lipoprotein uptake and metabolism and the definition of participating structural genes on the genetic and functional level. The teaching of graduate students represents an integral duty of this position. Reply with curriculum vitae and three letters of reference to: Kay Pokladnik, Department of Molecular Genetics, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235. Equal Opportunity Employer.

ASSISTANT PROFESSOR, CROP SCIENCE. Department of Agronomy invites applications for a tenure-track position in crop science. Responsibilities include student advising, teaching introductory crop science, and a graduate course in area of specialty. Candidate is expected to develop a research program in crop science. Send letter of application including curriculum vitae, statement of research interests, and names of three references by 1 November 1990 to: Dr. Fred Miller, Department of Agronomy, 2021 Coffey Road, Ohio State University (OSU), Columbus, OH 43210. OSU is an Equal Opportunity/Affirmative Action Employer.

### ASSISTANT PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology, Chicago College of Osteopathic Medicine, invites applications for a tenure-track faculty position. The applicant must have a Ph.D., 1 to 2 years of postdoctoral experience, and ability and interest in teaching pharmacology to medical students. The successful candidate is expected to have developed independent research that is likely to attract extramural funding. Interested applicants should send their curriculum vitae, list of publications, plans for future research, and names of three references to: Venkatray G. Prabhu, Ph.D., Professor and Chairman, Department of Pharmacology, Chicago College of Osteopathic Medicine, 555 31st Street, Downers Grove, IL 60515. Telephone: 708-515-6381.

An Affirmative Action/Equal Opportunity Employer.

NUTRITIONAL BIOCHEMIST (MINERALS). The Department of Animal Sciences, University of Illinois at Urbana-Champaign (UIUC), invites applications for the position of ASSISTANT PROFESSOR of nutritional biochemistry (tenure track) with a specialty in mineral metabolism. Qualifications include a Ph.D. in nutritional biochemistry or related field with training in mineral metabolism. Expertise in cell culture and gene expression as well as postdoctoral experience is desired. Salary will be commensurate with qualifications and experience. Candidates should submit a letter of intent, curriculum vitae, and three letters of reference by 1 December 1990 to: D. R. Campion, Head, Department of Animal Sciences, University of Illinois, 1301 West Gregory Drive, Urbana, IL 61801. Telephone: 217-333-3462. The UIUC is an Affirmative Action/Equal Opportunity Employer.

### **POSITIONS OPEN**

### ASSISTANT PROFESSOR TOXICOLOGY

University of Connecticut School of Pharmacy, Section of Pharmacology and Toxicology. Anticipated tenure-track position involves undergraduate and graduate teaching, development of an independent research program with emphasis in genetic toxicology, and service with other faculty as a resource on toxic chemicals issues. Research interest in the importance of xenobiotic metabolism is desirable. Candidate should have a broad knowledge of toxicology with a doctorate and publications in toxicology or a closely related field and at least 1 year of relevant postdoctoral experience. Send curriculum vitae and copies of recent publications and arrange for three letters of recommendation to be sent to: Dr. Steven D. Cohen, Chairman, Search Committee, School of Pharmacy, 372 Fairfield Road, Storrs, CT 06269—2092. Screening will begin immediately and continue until the position is filled. Affirmative Action/Equal Opportunity Employer. (Search #1A24.)

#### HARVARD UNIVERSITY ASSISTANT PROFESSOR CELLULAR AND DEVELOPMENTAL BIOLOGY (CDB)

The Department of Cellular and Developmental Biology intends to make an appointment at the assistant professor level effective September 1992. Our department covers a broad range of topics in cellular biology, developmental biology, neurobiology, and molecular genetics. We are seeking outstanding candidates in any of these fields. We are particularly interested in making an appointment in the areas of plant molecular biology, developmental genetics, and protein sorting. However, we will consider exceptional applicants in other fields as well. We strongly encourage applications from women and minority groups. Applications, and a statement of present and future research plans. Complete applications and three letters of recommendation, solicited by the applicant, should be received no later than 1 October 1990 by: CDB Search Committee, Cellular and Developmental Biology, Harvard University, 16 Divinity Avenue, Cambridge, MA 02138. Telephone: 617-495-2327. Harvard University is an Affirmative Action/Equal Opportunity Employer.

### **GROSS ANATOMIST**

Department of Surgery, University of California, San Diego (UCSD). Tenure-track ASSISTANT PROFESOR position open to teach gross anatomy at the UCSD School of Medicine beginning 1 July 1991. This is mainly a teaching and research position, with some administrative responsibilities. It requires interest and ability to teach in the medical school core gross anatomy course and to offer and participate in elective teaching. The candidate must have a Ph.D. in anatomy and research competence of a degree to allow independent productivity and effective cooperative undertakings with others. Send curriculum vitae and names of three academic references to: N. A. Halasz, M.D., Professor and Head, Division of Anatomy, UCSD Medical Center, 225 Dickinson Street, San Diego, CA 92103. Position closes 31 January 1991. Salary per published University of California scale. Equal Opportunity/Affirmative Action Employer.

MICROBIOLOGIST. The Biology Department of Albion College is reopening its search for a broadly trained microbiologist with experience in such areas as bacteriology, immunology, or environmental microbiology to fill a tenure-track position as ASSISTANT PROFESSOR to begin in August 1991. A Ph.D. is required, and teaching experience is preferred. The successful candidate will be expected to teach an upper level, undergraduate course in general microbiology with laboratory. The candidate will also share responsibilities in introductory biology courses, and competency in basic botany and zoology is expected. Modern facilities include TEM, SEM, an incubator-shaker, controlled environment chambers, and a 130-acre nature center. A research program incorporating undergraduate students is expected. Albion College encourages applications from women and minority candidates. Send letter of application, current curriculum vitae, copies of all academic transcripts, and three letters of reference to: Dr. Jeffrey C. Carrier, Chair, Biology Department, Albion College, Albion MI 49224. Deadline for applications is 1 November 1990. Albion College is an Equal Opportunity Employer.

### **POSITIONS OPEN**

PHYSICAL LIMNOLOGIST. The Center for Reservoir Research, Murray State University, seeks applications for tenure-track joint faculty appointment in the Departments of Geosciences and Biological Sciences at the ASSISTANT or ASSOCIATE PROFESSOR level. Candidate must have a Ph.D. degree with research emphasis in physical limnology (hydrologic processes, currents, estuarian processes, etc.). Evidence of ability to establish an innovative and vigorous interdisciplinary research and teaching program at the undergraduate and graduate levels is required. Appointment level and salary will be commensurate with experience. Screening of applications will begin on 1 October 1990, and continue until position is filled. Applicants should send curriculum vitae, transcripts, the names of at least three references, and description of research plans and teaching interests to: Dr. Joe M. King, Chair, Department of Biological Sciences, Murray State University is an Affirmative Action/ Equal Opportunity Employer.

#### MOLECULAR GENETICS DEVELOPMENTAL BIOLOGY CALIFORNIA STATE UNIVERSITY HAYWARD

ASSISTANT PROFESSOR. Tenure-track position anticipated in eukaryotic developmental and/or molecular genetics beginning September 1991; Ph.D. and post-doctoral experience required. Expected to teach undergraduate courses in general genetics and molecular genetics; participate in developmental biology series, biotechnology, and graduate programs; and contribute, if needed, to major and nonmajor programs. This person must develop an independently funded research program. Women and minorities are especially encouraged to apply. Curriculum vitae, reprints, brief summary of teaching interests and research goals, and three letters of reference must arrive by 15 November 1990. Send to: Chair, Genetics Search Committee, Department of Biological Sciences, California State University, Hayward, Hayward, CA 94542. Position #91-92 BIOL-TT-1. Affirmative Action/Equal Opportunity Employer.

#### ASSISTANT PROFESSOR DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY DARTMOUTH MEDICAL SCHOOL

Applications are invited from qualified individuals possessing a Ph.D. or M.D. degree and postdoctoral experience. Although preference will be given to applicants with a funded research program in neuropharmacology (e.g., signal transduction, molecular pharmacology or ion channels, developmental neurobiology, molecular aspects of neurodegenerative diseases), immunotoxicology (e.g., immuno-radiotherapy), or molecular toxicology, other areas of research will also be considered. Responsibilities will include medical and graduate teaching in pharmacology and/or toxicology. Applicants should forward a complete curriculum vitae including any teaching experience and grant support, an outline of future research plans, and three letters of reference to: Chairman, Department of Pharmacology and Toxicology, Dartmouth Medical School, Hanover, NH 03756. Deadline for receipt of these materials is 31 October 1990. Dartmouth College is an Equal Opportunity/ Affirmative Action Employer.

#### TENURE-TRACK POSITIONS ASSISTANT OR ASSOCIATE PROFESSOR OF PHYSIOLOGY

The University of Tennessee, Memphis, Department of Physiology and Biophysics, has three tenure-track positions at the rank of assistant professor or associate professor. Candidates should have a Ph.D. or M.D. degree, a good track record in publications, and postdoctoral research experience with a background in cellular and/or molecular biology. The abilities to establish an independent research program in the areas of cardiovascular, gastrointestinal, developmental, endocrine, or epithelial physiology and to engage in teaching activities of the department are expected. Applicants send curriculum vitae, copies of three representative publications, and the names of three references to: Dr. Leonard R. Johnson, The Thomas A. Gerwin Professor and Chairman, Department of Physiology and Biophysics, 894 Union Avenue, Memphis, TN 38163. An Equal Opportunity/Title IX/Section 504/Affirmative Action Employer. Minorities and women are encouraged to apply.

At the Swiss Federal Institute for Water Resources and Water Pollution Control (EAWAG) in Dubendorf, Zurich, the post of a

### DIRECTOR

will be vacant from April 1, 1992, on the retirement of the present holder.

The EAWAG is a multi-disciplinary research institute (staff: ca. 250) of the Swiss Confederation, with intensive international contacts, reporting to the Board of the Swiss Federal Institutes of Technology Zurich and Lausanne. Its current research activities include chemistry and analytical chemistry; technical biology; engineering sciences; hydrobiology and limnology; fisheries science; waste and materials management; environmental physics; multi-disciplinary limnological research and earth sciences. The research institute is well equipped with a technical infrastructure, and participates in teaching at the ETH Zurich. It also organises symposia on aquatic ecology, atmospheric science, air pollution, sewage purification and waste management, and enjoys close contact with comparable scientific institutes in Switzerland and abroad.

The Director in charge of the EAWAG is responsible for the smooth running of all operations, scientific, technical, and administrative. His or her wish to be engaged in teaching at the ETH Zurich or Lausanne is an option we welcome.

We are looking for a mature personality who can handle this challenging task, one who knows from experience how to lead a team either in university or industrial context. The applicant's prerequisites are: university training, wide-ranging and successful research activities in areas such as chemistry, biology, physics, environmental or engineering sciences – coupled with a good command of German, French and English.

Applications should be addressed to the President of the Board of the Swiss Federal Institutes of Technology, ETH-Zentrum, CH-8092 Zurich, no later than 31 October 1990.

# ST MICHAELS Director HOSPITAL Research Institute

St. Michael's Hospital, a major teaching hospital affiliated with the University of Toronto, has created a new Research Institute and seeks applicants for the post of Director.

The position requires an imaginative, creative and dynamic scientist with excellent leadership skills to:

- Provide scientific leadership for the Institute, establish new research programs and stimulate multidisciplinary collaboration.
- Build and lead an internationally recognized program in health research.
- Shape the future of the Institute through significant new recruitment of both fundamental and clinical scientists.

The Research Institute will include a new facility within St. Michael's Hospital. It will accommodate ongoing research programs. Excellent opportunities exist for interacting with a variety of strong research programs throughout the hospital.

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

Applicants should submit a curriculum vitae and the names and addresses of three references by November 30, 1990 to:

Chairman, Search Committee for Research Institute Director Administration St. Michael's Hospital 30 Bond Street Toronto, Ontario M5B 1W8 Fax: (416) 864-5352

St. Michael's Hospital is a major Canadian university teaching hospital. St. Michael's is committed to studying the causes, treatment and prevention of disease.

# BOSTON UNIVERSITY MEDICAL CENTER EVANS MEDICAL RESEARCH DEPARTMENT

### **DIRECTOR**

### **NEW RESEARCH TRAINING PROGRAM**

The Evans, one of the nation's oldest endowed basic and clinical research departments, seeks a director for an innovative research training program. The program will enhance the already excellent environment for postdoctoral/fellowship training of both Ph.D. and M.D. scientists. Endowment funds are available to support trainees and an enriched program of visiting senior scientists, seminars, methods courses, etc.

The Evans staff currently includes about 100 basic scientists and clinical investigators and 60 post-doctoral students/fellows. Over 75,000 square feet of modern research space is now in use and expansion is planned.

The Director of the new research training program should be a scientist of recognized achievement interested in training of basic and clinical investigators for interactive medical research. Both senior basic/clinical scientists (including distinguished emeritus researchers) and established younger scientists will be considered. Funds and space are available for Director's personal research. Reply to: Dr. Norman G. Levinsky, Director, Evans Department, Boston University Medical Center, Boston, MA 02118



### Developmental Geneticist

The Department of Biology at Yale University seeks to appoint a Developmental Geneticist at the level of Assistant Professor (Ladder Faculty). Applications are invited from individuals using classical and molecular genetic approaches to study development. The successful candidate is expected to carry on a vigorous, independent research program, supervise the research of graduate students and postdoctoral fellows, and contribute to undergraduate and graduate teaching.

Please send curriculum vitae, description of research interests and the names and addresses of at least three referees by January 1, 1991 to: Developmental Geneticist Search Committee, c/o Chairman, Department of Biology, Yale University, P.O. Box 6666, New Haven, CT 06511-8112.

Yale University is an Affirmative Action/ Equal Opportunity Employer.

Women and members of minority groups are especially urged to apply.

# NATIONAL INSTITUTE of MENTAL HEALTH PUBLIC HEALTH SERVICE DEPARTMENT OF HEALTH AND HUMAN SERVICES

# DEPUTY DIRECTOR DIVISION OF INTRAMURAL RESEARCH

The National Institute of Mental Health (NIMH), one of three scientific Institutes of the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA), is seeking nominations and applications for the position of Deputy Director, Division of Intramural Research Programs (DIRP). The Division is the largest scientific research center in the world focused on mental health, mental illness, and behavioral and brain research. Its diverse research programs are conducted by over 750 employees, including over 200 doctoral-level scientists, in 21 different laboratories and clinical branches.

Responsibilities of the Deputy Director, DIRP, includes serving as full Deputy to the Institute's Scientific Director, with full delegation of authority to act for the Scientific Director in both scientific and administrative matters related to the overall operation of the Institute's intramural research program; advising and consulting with the Scientific Director and with the Laboratory and Branch Chiefs on policy issues that have impact throughout the Division; allocating and controlling the Division's human, financial, and space resources in the Director's name; devising methods to attract and retain worldclass leaders in the field of mental health research; and providing advice, counsel, and direction to the Laboratory and Branch Chiefs, and to their subordinates, on the development and implementation of program plans.

Minimum qualifications requirements include a degree of Doctor of Medicine, Doctor of Philosophy, Doctor of Osteopathy, or a bachelor's or higher degree in an academic field related to the health sciences, and progressively responsible experience in developing, administering, and evaluating biomedical research programs.

The person selected for this position will receive a career appointment to the Senior Executive Service with an annual income of \$79,200 (plus up to \$20,000 per annum allowance for physicians only). The proposed income range to be effective January 1991, pending issuance of an Executive Order, is \$84,000 to \$97,000 (plus up to \$20,000 allowance for physicians only). Senior Executive Service members are also eligible for performance awards of 5 to 20 percent of base salary.

Additional information about the position and qualifications requirements may be obtained by contacting Mr. Joseph W. Whitaker at (301) 496-5337. An SF-171, Application for Federal Employment, accompanied by a current curriculum vitae and bibliography, and the names and addresses of three references, should be submitted to:

Mr. Whitaker
NIMH-IRP Personnel Office
Building 10, Room 4C101
National Institutes of Health
9000 Rockville Pike
Bethesda, Maryland 20892

Complete application packages, including the SF-171, must be postmarked by the closing date, September 28, 1990. Resumes are not acceptable for entrance into the Senior Executive Service. Applications will be accepted from all qualified Federal employees, and from individuals with SES reinstatement eligibility ONLY.

Applications from women and minority group members are solicited.

The Alcohol, Drug Abuse, and Mental Health Administration is an Equal Opportunity Employer

### **POSITIONS OPEN**

#### ASSISTANT PROFESSOR AGRICULTURAL METEOROLOGY

Twelve-month, tenure-track position in agricultural climatology (60% research, 40% extension). Emphasis on quantifying, evaluating, and disseminating information on effects of climate variability and climate change on natural resources and managed and natural ecosystems. Assist public and governmental agencies in developing programs to monitor, manage, and conserve Nebraska's natural resources, especially water. Requires Ph.D. and ability to develop interdisciplinary linkages with other scientists as well as effective communication with the public. Send résumé, transcripts, and names of three references postmarked by 31 October to: Dr. Blaine L. Blad, Head, Department of Agricultural Meteorology, University of Nebraska–Lincoln, Lincoln, NE 68583–0728. An Affirmative Action/Equal Opportunity Employer.

MOLECULAR BIOLOGIST/GENETICIST. Tenure track ASSISTANT PROFESSOR, 12-month appointment, primarily research, to develop and apply molecular genetic/gene transfer systems in animals of agronomic importance. Required: Ph.D. in a biological science; research in molecular genetics and recombinant DNA technology including gene cloning, DNA sequencing, and gene transfer; and a commitment to the application of molecular techniques to animal agriculture. Desired: postdoctoral experience; training in genetics, immunology, embryology, or cell biology; technical competence in microscopy, microinjection, cytogenetics, and cell culture. Submit curriculum vitae, transcripts, statement of research interests, and the names and addresses of three references by 1 January 1991 to: Dr. Kevin S. Guise, Department of Animal Science, University of Minnesota, 495 AnSc/VM, 1988 Fitch Avenue, St. Paul, MN 55108. Telephone: 612-624-4277. FAX: 612-625-2743. The University of Minnesota an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

#### ASSISTANT PROFESSOR BACTERIAL MOLECULAR GENETICS

The Department of Microbiology and Immunology, Bowman Gray School of Medicine of Wake Forest University, invites applications for a tenure-track faculty position at the assistant professor level. The applicant should possess a Ph.D. or M.D. degree and have at least 2 years of postdoctoral training in bacterial molecular genetics. The successful applicant will be expected to develop a strong independent research program and participate in the teaching of medical and graduate students. The department has substantial strength in the areas of molecular immunology and pathogenesis. Outstanding research facilities are available within the department as well as through interdepartmental programs and centers such as the Molecular Genetics Program and the Cancer Center of Wake Forest University. Applicants should send curriculum vitae, a statement of research interests and goals, and the names of three references to: Dr. Steven B. Mizel, Department of Microbiology and Immunology, Bowman Gray School of Medicine. Winston-Salem, NC 27103. Wake Forest University is an Equal Opportunity/Affirmative Action Employer.

### ASSISTANT PROFESSOR IN PLANT MOLECULAR BIOLOGY AT UNIVERSITY OF ILLINOIS, CHICAGO

Applications are invited for a tenure-track position available beginning fall of 1991 at the assistant professor level in the Department of Biological Sciences. Candidates should have one or more years of postdoctoral experience, will be expected to develop a strong research program in plant molecular biology, and must be willing to contribute to the departmental coursework offerings. The successful applicant will join an active group of plant and molecular biologists and will have access to a wide variety of modern facilities with the department and the university. Please send curriculum vitae, a statement of research goals, and the names and addresses of three referees to:

Plant Molecular Biology Search Committee c/o Dr. Sidney B. Simpson, Jr., Head Department of Biological Sciences (M/C 066) The University of Illinois at Chicago Box 4348 Chicago, IL 60680

Applications will be accepted until 15 October 1990. The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.

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The Department of Molecular Biology at Princeton University invites applications for a tenure-track position at the ASSISTANT PROFESSOR level in the area of developmental neurobiology. We are especially interested in individuals who are working on the development or functioning of the nervous system in organisms which are amenable to both genetic and molecular analysis. Applicants should send curriculum vitae, a summary of research interests, and the names of at least three referees

Developmental Genetics and Neurobiology Search Committee Department of Molecular Biology Princeton University Princeton, NJ 08544

Application deadline is 20 October 1990.

Princeton University is an Equal Opportunity/Affirmative Action Employer.

# 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.

POST-HARVEST HORTICULTURIST. AS-SISTANT PROFESSOR, 12-month, tenure track, be-ginning 1 December 1990, or as soon thereafter as possible; Department of Horticultural Science, University of Minnesota. The faculty member will conduct research centered on post-harvest physiology and technology of horticultural crops of regional importance. Primary research responsibilities are for improving the post-harvest storage and handling of vegetables with opportunities for cooperative research in fruits and ornamental plants. In cooperation with colleagues in horticulture, related departments, and county and area agents of Minnesota Extension Service, the faculty member will develop and conduct educational programs that address the post-harvest needs of the vegetable industry in Minnesota. The faculty member is expected to assist in ongoing programs in vegetable production. This position will advise graduate students and be a member of the graduate faculty. If desired, the faculty member may articipate in a team-taught course in post-harvest phyiology and handling for advanced undergraduates and beginning graduate students. A Ph.D. degree in horticulture or related field by date of appointment is required. Graduate level course work or research experience in post-harvest physiology and/or packaging of horticultural crops is desired. A current curriculum vitae, graduate level transcripts, a one to three-page statement of their extension and research interests as related to the position, and three letters of reference should be sent to: position, and three letters of reference should be sent to: Search Committee, Attention: Albert H. Markhart, III, University of Minnesota, Department of Horticultural Science, St. Paul, MN 55108. Telephone: 612-624-7705. All application materials listed above must be received by 31 October 1990. The University of Minnesota is an Equal Opportunity Educator and Employer and International Committee of the International Committee of t specifically invites and encourages applications from women and

### BIOPHARMACEUTICAL SCIENTISTS

SmithKline Beecham, a world leader in pharmaceutical research, has the following opportunities in our expanding Biopharmaceutical Research & Development organization:

## **EUCARYOTIC GENE EXPRESSION**

### MAMMALIAN EXPRESSION SCIENTIST

In this position you will conduct research to improve our current mammalian expression systems and develop novel systems for the expression of heterologous proteins. Requirements are a Ph.D. in Genetics, Microbiology, Biochemistry or related discipline, 2-6 years of postdoctoral experience (1-2 years in industry preferred), and excellent communication skills. Experience in CHO is preferred, but expertise in other higher eucaryotic expression systems will be considered. (Position #G0144)

### INSECT EXPRESSION SCIENTIST

The selected candidate will conduct research to improve our current insect cell expression system and novel systems for the expression of heterologous proteins of therapeutic interest. Requirements are a Ph.D. in Genetics, Microbiology, Biochemistry or a related discipline, 2-4 years of postdoctoral experience, and excellent communication skills. Experience with *Drosophila* cells preferred, but expertise in other insect expression systems will be seriously considered. (Position #G0144)

# Molecular Genetics

### POSTDOCTORAL SCIENTIST

As a member of a research group focusing on the molecular genetics of retroviruses, this individual will study the mechanism of action of essential retroviral proteins, in particular the transactivator of gene expression (tat), the reverse transcriptase and the retroviral protease. Requirements include a Ph.D. in Molecular Biology or other biological science, and background in recombinant DNA techniques, molecular genetics of *E. coli* or Streptomyces. Expression in microbial and/or eukaryotic systems, as well as protein purification and tissue culture preferred. (Position #G0145)

### MOLECULAR GENETICS SCIENTIST

The selected candidate will perform experiments in molecular biology, including cDNA and gene cloning and expression and characterization of gene products. This individual will assist in the design, interpretation, modification and execution of experiments and techniques, compile data with the aid of computers and present that data in appropriate group or department settings. Requirements include a B.S./M.S. in Chemistry, Biochemistry or Biology and 1+ years lab experience in cloning techniques and DNA sequence analysis. Experience in screening cDNA and genomic libraries and a willingness to work with radioactive compounds is required. Experience in tissue culture, protein purification and antisera production is desirable. Good communication skills essential. (Position #G0146)

### DNA SEQUENCING SCIENTIST

This individual will perform DNA sequencing reactions, run DNA sequence gels and use our VAX computer system to enter data and to manipulate DNA sequences. There will also be extensive interaction with other scientists throughout the organization. Requirements include a B.S. or M.S. in the Biological Sciences with 2+ years related laboratory experience. A background in Sanger sequencing methodology is preferred. Good oral and written communication skills are required. (Position #G0147)

Our state-of-the-art research facilities are located in suburban Philadelphia, near Valley Forge, PA. We offer a competitive compensation and benefits package and a stimulating environment in which to grow and excel. For confidential consideration, send your resume referencing position number to: T. Gallagher, Senior Employment Administrator, SmithKline Beecham Pharmaceuticals,

> P.O. Box 1539, King of Prussia, PA 19406-0939. Equal Opportunity Employer, M/F/H/V.



### ASSISTANT PROFESSOR, BIOCHEMISTRY UNIVERSITY OF COLORADO, BOULDER

The Department of Chemistry and Biochemistry invites applications for a tenure-track faculty position with preference to candidates at the assistant professor level, but candidates at all levels will be considered. The appointment is part of a major expansion in staff and facilities in biochemistry. Applicants should have a Ph.D. in chemistry or biochemistry and a major commitment to conducting a vigorous and innovative research program in biochemistry. Applicants in all areas of biochemistry are welcome and those with approaches that interface with other areas of chemistry are encouraged. An area of particular interest is in x-ray crystallography or a related area of structural biochemistry. Applicants should send curriculum vitae, representative reprints, and statement of research plans and have three letters of reference sent to: Biochemistry Search Committee, Department of Chemistry and Biochemistry, University of Colorado, Campus Box 215, Boulder, CO 80309–0215. Applicants will be evaluated beginning 1 November 1990 with a final application deadline of 15 December 1990. The University of Colorado at Boulder has a strong institutional commitment to the principle of diversity in all areas. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities, and disabled individuals.

### IMMUNOLOGIST UNIVERSITY OF VICTORIA VICTORIA, BRITISH COLUMBIA, CANADA

The Department of Biochemistry and Microbiology invites applications for a full-time, tenure-track appointment at the ASSISTANT PROFESSOR level in the area of immunology/molecular immunology/collular immunology. The successful candidate must be qualified to teach in our broadly based undergraduate program in biochemistry, microbiology, and immunology, and to establish a vigorous independent research program. The deadline for application is 1 November 1990. Applicants should send their curriculum vitae, together

The deadline for application is 1 November 1990. Applicants should send their curriculum vitae, together with one copy of two recent publications, a short description of future research interests, and have at least three letters of references sent to:

Dr. Rozanne Poulson Faculty Search Committee Department of Biochemistry and Microbiology University of Victoria P.O. Box 3055, Petch Building Victoria, British Columbia V8W 3P6, Canada

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents. The University of Victoria is committed to an Employment Equity program. Women are particularly encouraged to apply.

#### TENURE-TRACK POSITION EXPERIMENTAL APPLIED PHYSICS CORNELL UNIVERSITY

The School of Applied and Engineering Physics at Cornell University is seeking applications for a tenurerack ASSISTANT PROFESSOR position which is expected to be filled by the beginning of the fall 1991 semester. The appointment is intended to be made in one of three experimental applied physics research areas: modern applied optics, biological physics, or the chemical physics of solids. Candidates must be able to develop a successful independent research program in one of these areas and to participate effectively in the teaching of applied physics at the undergraduate and graduate level. Considerable institutional resources for the support of the successful applicant's research program are available and a competitive start-up package can be expected. The successful candidate can expect to benefit from association with one or more of Cornell's interdisciplinary research centers, national facilities, and national resources, which include the Materials Science Center, the National Nanofabrication Facility, the Cornell High Energy Synchrotron Source (CHESS), the Center for Theory and Simulation in Science and Engineering (a national supercomputer facility), the Biotechnology Center, and NIH-funded resources for macromolecular x-ray diffraction and for biophysical imaging. Applications, which should include a résumé, copies of publications or preprints, and several references, should be submitted to: Professor Robert A. Buhrman, Director, School of Applied and Engineering Physics, Clark Hall, Cornell University, Ithaca, NY 14853–2501.

Cornell University is an Equal Opportunity/Affirmative Action Employer.

### **POSITIONS OPEN**

### STOCKTON STATE COLLEGE MARINE SCIENCE PROGRAM

ASSISTANT PROFESSOR OR INSTRUCTOR in coastal oceanography. Tenure track for January 1991, but September 1991 possible. Ph.D. or A.B.D. in chemical or physical oceanography required. Teaching experience in estuarine and near-shore waters and familiarity with Coastal Zone Management preferred. Will teach undergraduate marine science courses and guide student research. Four-vessel fleet and computer interfaced water chemistry sampling gear allow state-of-the-art research on ocean sediment and water parameters. Salary range: \$23,637 to \$33,042; may be higher depending on qualifications, experience, and increases in New Jersey Higher Education Compensation Plan. Screening begins 15 October 1990. Send letter, résumé, and three letters of reference to: Dr. Barbara Byrne, Dean, Natural Sciences and Mathematics, Stockton State College, AA29, Pomona, NJ 08240. Stockton is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply. R100587.

#### EUKARYOTIC MOLECULAR BIOLOGIST ASSISTANT/ASSOCIATE PROFESSOR

The Department of Molecular and Cellular Biochemistry of the Stritch School of Medicine at Loyola University of Chicago is seeking to fill a faculty position at the assistant/associate professor level in the area of cukaryotic molecular biology. Preference will be given to applicants interested in gene regulation, particularly the study of oncogenes. However, excellent applicants in other areas of eukaryotic molecular biology are invited. The successful applicant will be expected to initiate a vigorous, innovative, and extramurally funded research program, participate in medical school and graduate school teaching, and interact collaboratively with other scientists within the university. Generous start-up funds are available.

Send curriculum vitae, research interests and goals, recent reprints, and the names of three references to:

Richard M. Schultz, Ph.D., Chairman
Department of Molecular and Cellular Biochemistry
Loyola University of Chicago
Stritch School of Medicine
2160 South First Avenue
Maywood, IL 60153

Loyola University of Chicago is an Equal Opportunity/ Affirmative Action Employer.

### NUTRITIONIST/BIOCHEMIST

Horn Point Environmental Laboratory (HPEL) and the Agriculture Experiment Station of the University of Maryland System are seeking applications for a joint tenure-track ASSISTANT/ASSOCIATE PROFESSOR position in the research area of nutrition/biochemistry of aquatic invertebrates and fishes. Specialties of interest include feeding and assimilation, with emphasis on the nutritional role of natural and artificially prepared aquaculture diets. A Ph.D. in biochemistry or nutrition is required and postdoctoral experience is preferred. The successful candidate is expected to develop a strong and independent research program as well as participate in graduate education. Applicants should forward a statement of research interests, curriculum vitae, and name and addresses of three references by 1 November 1990 to: Dr. R. Harrell, HPEL, Box 775, Cambridge, MD 21613. Telephone: 301-228-8200. FAX: 301-476-5490. The University of Maryland is an Affirmative Action/ Equal Opportunity Employer.

ASSISTANT/ASSOCIATE PROFESSOR. University of Nebraska Medical Center (UNMC) College of Dentistry, Department of Oral Biology, continues its search for a physiologist/oral biologist. This is a 12-month, tenure-leading position in a multidisciplinary basic science department. Responsibilities include undergraduate and graduate teaching in physiology and establishment of an active research program. Ph.D. or equivalent degree required. Postdoctoral experience preferred. Salary and rank commensurate with background, training, and experience. Review of applications will begin on 7 October 1990 and continue until position is filled. Send curriculum vitae and three letters of reference to: Search Committee, Position #9-6236, UNMC College of Dentistry, Office of the Dean, Room 107, 40th and Holdrege Streets, Lincoln, NE 68583–0740.

The University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer.

### **POSITIONS OPEN**

# THE UNIVERSITY OF BRITISH COLUMBIA DEPARTMENT OF CHEMISTRY ASSISTANT PROFESSOR

The Department of Chemistry, University of British Columbia, invites applications for a tenure-track assistant professorship in organic chemistry, starting 1 July 1991. Preference will be given to candidates who propose to carry out research in physical organic chemistry or organic polymer chemistry; however, outstanding candidates in related areas of organic chemistry will be considered. A Ph.D., postdoctoral experience, and a strong research track record are required. The successful candidate would be expected to teach chemistry courses at the undergraduate and graduate level. The salary will be commensurate with education and experience.

The University of British Columbia is committed to the federal government's Employment Equity Program and encourages applications from all qualified individuals. The position is subject to final budgetary approval and, in accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents.

Applications consisting of a curriculum vitae, list of publications, summary of research interests, a detailed research proposal, and the names and addresses of at least three references should be sent to:

Professor E. Piers
Chairperson, Future Appointments Committee
Department of Chemistry
University of British Columbia
2036 Main Mall
Vancouver, British Columbia V6T 1Y6, Canada
Closing date for applications is 1 November 1990.

ASSISTANT/ASSOCIATE PROFESSOR OF PHARMACOLOGY. Candidates with research interests in neuroscience related to molecular mechanisms of drug actions are sought for an anticipated tenure-track position. Send curriculum vitae, a statement of research and teaching experience, and three to five references to: Harbans Lal, Ph.D., Chairman, Department of Pharmacology, Texas College of Osteopathic Medicine, 3500 Camp Bowie Boulevard, Fort Worth, TX 76107. Affirmative Action/Equal Opportunity Employer.

# MOLECULAR AND DEVELOPMENTAL NEUROBIOLOGY CENTER FOR MOLECULAR MEDICINE YALE UNIVERSITY SCHOOL OF MEDICINE

The Yale University School of Medicine is seeking applicants at the level of ASSISTANT, ASSOCIATE, AND FULL PROFESSORS for the Molecular and Developmental Neurobiology Program in the newly created Yale Center for Molecular Medicine. Research in the program will focus on various aspects of neurobiology, with potential application to human disease. Any area of neurobiology at the molecular or genetic levels will be considered. Researchers working with either vertebrate or invertebrate model systems are encouraged to apply. M.D. or Ph.D. appointees will hold regular faculty positions in one of the existing departments of the School of Medicine.

School of Medicine.

Salary and partial research support will be provided.

Curriculum vitae and three letters of reference should be submitted by 10 October 1990 to:

Dr. Spyros Artavanis-Tsakonas, Chairman Molecular and Developmental Neurobiology Search Committee for the Yale Center for Molecular Medicine Yale University School of Medicine Box 3333 New Haven, CT 06510

Yale University is an Equal Opportunity/Affirmative Action Employer.

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 31 October 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.



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### NATIONAL UNIVERSITY OF SINGAPORE **DEPARTMENT OF MEDICINE**

Applications are invited for appointment as Clinical Biochemist in the Department of Medicine. Candidates should preferably have a Masters or PhD degree in Biology or Biochemistry. Those with a relevant Honours degree may also be considered. Experience in molecular biology would also be useful. The following are research projects that the Department is undertaking:

- Natural history and serology of patients with chronic hepatitis B infection Vaccination studies in hepatitis B  $\,$
- Interferon treatment of chronic hepatitis B Interferon production in chronic hepatitis B infection
- Serology of family members of hepatitis B carriers The role of aflatoxins in hepatocellular carcinoma
- Hepatitis C studies Basic research on liver function

Specific duties and responsibilities include the following

- (a) daily supervision of laboratory staff
- (b) responsible for stock taking, maintenance and purchasing of equipment and supplies
  (c) administration of Hepatology Research Laboratory
  (d) help in preparing protocols for research projects i.e., technical aspects
  (e) quality control of all results done in the laboratory

The successful candidate may be appointed up to three years at a time.

Gross annual emoluments range from \$\$22,090 to \$\$38.650/\$\$57,300. (US\$1 = \$\$1.79 approx.) The commencing salary is dependent upon the qualifications and experience of the appointed

Leave and medical benefits will be provided. Depending on the type of contract offered, other benefits may include: provident fund benefits or an end-of-contract gratuity, a settling-in allowance of \$\$1,000 or \$\$2,000, subsidised housing at nominal rentals ranging from \$\$100 to \$\$216 p.m., education allowance for up to three children subject to a maximum of \$\$10,000 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore

Candidates should write to the Director, Personnel Department, National University of Singapore, 10 Kent Ridge Crescent, Singapore 0511. giving their curriculum vitae and the names and addresses of three referees who can comment on their research ability and/or professional competence.

Enquiries may also be sent through BITNET to: PERLT (a NUS3090, or through Telefax: (65) 7783948

### International Rice Research Institute

### Head, Rice Genetic Resources Center

The Rice Genetic Resources Center (RGRC) is one of IRRI's three international support centers whose aim is to support and strengthen the rice research capacity of national agricultural research systems and to serve the international rice research community. The RGRC consists of the germplasm bank, which houses the world's largest collection of germplasm of a single crop, and the International Network for Genetic Evaluation of Rice, which coordinates the exchange and evaluation of rice genetic materials worldwide.

- Overall leadership of the Center, with direct responsibility for managing the germplasm bank.
- Assist national centers in developing and managing germplasm banks and in staff training.
- Provide genetic materials to national and international research institutions to enhance varietal
- Analyze date for better understanding of genotype-environment interactions.
- Provide strong linkages to IRRI's interdisciplinary research on the characterization, evaluation, and use of rice germplasm.

### **Oualifications**

- Ph D in plant breeding, plant genetics, or related field
- Extensive experience in germplasm collection and conservation
- Experience with agriculture in developing world, with emphasis on rice
- Strong background in information management and dissemination.

IRRI is a non-profit, agricultural research institute funded by some 30 donor nations and organizations. Its goal is to enhance rice production and sustainability to benefit the world's 3 billion people who depend on rice as their livelihood and as their basic food. The RGRC Head will live at IRRI headquarters 60 kilometers south of Manila. Salary and perquisites are competitive with those of similar international institutions.

Application: The position becomes vacant in January 1991. Applications accepted until 30 September 1990, or until a suitable candidate is selected. Send application with full documentation, including the names of three references, to Dr. Klaus Lampe, Director General, IRRI, PO Box 933, 1099 Manila, Philippines. Telephone: (63-2) 818-2026, Fax: (63-2) 818-2087.

# BIOLOGICAL NUCLEAR MAGNETIC RESONANCE RESEARCH

SmithKline Beecham Pharmaceuticals, a world leader in pharmaceutical research, is currently seeking an experienced NMR Spectroscopist and a Postdoctoral Scientist to join our Biological Nuclear Magnetic Resonance Research Group.

### NMR SPECTROSCOPIST

This position will conduct research in protein structure, protein-ligand interactions and peptide conformation. Qualified candidates for this position will have a Ph.D. in Chemistry, Physics or Biochemistry with a strong background in NMR methods, including knowledge of NMR hardware and the development and implementation of 2- and 3-dimensional NMR methods. He/she will have a strong publication record. Position level will be commensurate with experience and qualifications. (#H0152)

### POSTDOCTORAL SCIENTIST

This position will join in research on protein structure and protein-ligand interactions. Qualified candidates will have a Ph.D. in Chemistry, Physics or Biochemistry, a strong background in NMR and preferably some previous experience with NMR studies of biological macromolecules. (#H0153)

Our Biological NMR group, which is also active in *in vivo* spectroscopy and NMR imaging, is equipped with two 500 MHz spectrometers and a 400 MHz spectrometer with micro-imaging and solids accessories, and it has its own computer network for off-line data processing and image analysis. It has strong ties to the computational chemistry/molecular modeling group at our facility.

Based in a state-of-the-art research facility in suburban Philadelphia, near Valley Forge, PA, we provide a stimulating scientific environment in which to grow and excel. We offer a competitive compensation/benefits package. For confidential consideration, please indicate the appropriate job # and send your C.V. and the names of three references to: N. Hasson, Employment Administrator, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. EOE, M/F/H/V.



# PHARMACOLOGIST TOXICOLOGIST

# Neurobiology & Molecular Biology

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 is seeking a pharmacologist/ toxicologist to oversee preclinical safety and efficiency testing of our novel recombinant neurotrophic molecules. Industry experience and background in neuropharmacology are essential requirements for this position.

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 an excellent compensation package, including generous stock options. Suburban Westchester features attractive and affordable housing, outstanding public schools and recreational facilities along with ready access to the cultural 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.** 



# Sr. Scientists Cell Biology

If exploring exciting new areas in biotechnology is what you have in mind, come to Schering-Plough Research.

Research leading to pharmaceutical breakthroughs has made Schering-Plough a major force in the health care industry. This is your opportunity to work on some of the most significant projects within our Biotechnology-Cell Biology Research Group.

These unique positions will focus on Cytokine Biology, especially with reference to autoimmune and inflammatory diseases. Ph.D. in Immunology or Cell Biology with 0-4 years' post-doctoral experience. Desired qualifications include proven expertise in any of the following areas: Receptor Biology and Signal Transduction, Cytokine Interaction in the development of Haematopoietic Progenitor cells and mature lymphocytes. Additional expertise in the use and operation of Flourescence-activated cell sorters and animal models would be very desirable.

You can expect high visibility and the rare opportunity to work with a multidisciplinary team comprised of cell and molecular biologists, and protein chemists. And as a \$3+ billion leader, we can offer an excellent salary and outstanding benefits. For prompt consideration, please send your resume with salary history and indication of specialized field, to: Mr. G. Czuba, Schering-Plough Reseach, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

What you have in mind, we put in action.



For more than a century the employees of Burroughs Wellcome Co. have applied their talents to the discovery and development of important new medicines. Their abilities and initiative have brought our company preeminence in both the pharmaceutical industry and the scientific world...as our 1988 Nobel Prize winners give eloquent testimony.



# CNS Electrophysiologist Ph.D. Level

The Wellcome Research Laboratories has an immediate need for a Ph.D. with postdoctoral experience to apply single unit recording techniques to the study and discovery of novel CNS drugs. This individual will contribute studies of drug receptor interactions to the operation of an interdisciplinary team of neuroscientists engaged in new drug discovery. The opportunity also exists for this individual to conduct independent research and play a key role in leading drug discovery efforts.

Candidates must have a Ph.D. in physiology, pharmacology, or neuroscience with one year postdoctoral experience in CNS electrophysiology. Experience in use of **in vivo** and **in vitro** single unit recording techniques to study effects of therapeutic agents on neuronal activity is required. Experience in iontophoresis is desirable.

As a valued professional at Burroughs Wellcome Co. you will receive a salary commensurate with your experience and be supported by the highest level of benefits in our industry. If you are interested in joining our research team, submit your curriculum vitae, indicating position number in your cover letter, by November 5, 1990 to: Burroughs Wellcome Co., Scientific Recruiting and Staffing, Position #62272-4, 3030 Cornwallis Rd., 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.



BURROUGHS WELLCOME CO.

**Wellcome |** Equal Opportunity Employer

The Department of Molecular Biology at Princeton University invites nominations and applications for an ENDOWED PROFESSORSHIP. Candidates should head an active research program and have an established reputation for excellence in scholarly research. Preference will be given to candidates with a strong background and research interest in biochemistry. For further information, contact:

Professor Thomas Shenk Lewis Thomas Laboratory Department of Molecular Biology Princeton University Princeton, NJ 08544

Princeton University is an Equal Opportunity/Affirmative Action Employer.

### ASSISTANT/ASSOCIATE MARINE SCIENTIST

Graduate School of Oceanography, 2-year resident adviser to the Coastal Resources Institute at Prince of Songkla University. Experience in one or more aspects of coastal resources science and management required. Ph.D. or equivalent degree in a related discipline required. Developing country experience and ability to speak Thai preferred. Seek an individual with broad outlook, good interpersonal skills, and a demonstrated ability to work with a wide variety of people on interdisciplinary coastal resources management projects. Grant-funded position initially limited to 2 years. Submit a letter of application and résumé by 28 September 1990 to: Dr. Stanley Cobb, Search Committee Chair, Assistant/Associate Marine Scientist (0091043-G) Position, The University of Rhode Island, P.O. Box G, Kingston, RI 02881. An Affirmative Action/Equal Opportunity Employer.

CHAIRPERSON. Department of Neurology, School of Medicine, University of California, San Francisco (UCSF). Qualified candidates are invited to apply for the position as chairperson of the Department of Neurology at the UCSF School of Medicine. Applicants should submit curriculum vitae, bibliography, and the names of four references to: Dorothy F. Bainton, M.D., Chair, Search Committee for Chair of Neurology, c/o Joyce McKinney, Office of the Dean, School of Medicine, University of California, San Francisco, San Francisco, CA 94143–0410. UCSF is an Affirmative Action/Equal Opportunity Employer. Women and minorities are particularly urged to apply.

CHAIRPERSON, DEPARTMENT OF CHEMISTRY, Indiana University-Purdue University at Indianapolis (IUPUI). Nominations and applications are invited for this position in an expanding and developing department. Candidates must have a research, funding, and teaching record to merit appointment at the rank of professor, possess strong communication and interpersonal skills, and, preferably, have prior administrative experience. Preference will be given to the areas of organic chemistry, biochemistry, and analytical chemistry, although all areas will be considered. Appointment will commence July 1991. Applicants should send curriculum vitae and names, addresses, and telephone numbers of four references by 1 November 1990 to: Dr. Martin J. O'Donnell, Department of Chemistry-IU-PUI, 1125 East 38th Street, Indianapolis, IN 46205. IUPUI is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT DIRECTOR OF ANIMAL CARE, Brown University. The Division of Biology and Medicine is seeking applications for the position of assistant director of animal care, appointment to begin between 1 January and 1 July 1991. The individual will assist the director of animal care in providing clinical care for research animals in affiliated hospitals and AAALAC-accredited campus facilities, reviewing animal research proposals, advising investigators and IACUCs, providing surgical support to investigators as needed, and supervising animal care personnel. Candidates must hold the D.V.M./V.M.D. degree from an accredited school of veterinary medicine and have completed a residency in laboratory animal medicine or have at least 3 years of experience in laboratory animal medicine. The position offers opportunities for collaborative or individual research and for teaching activities. Applicants should submit curriculum vitae and have three letters of reference sent to: Dr. James T. McIlwain, Box G, Brown University, Providence, RI 02912 by 1 November 1990. Brown University is an Equal Opportunity/Affirmative Action Employer.

### **POSITIONS OPEN**

# CHAIR DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

The College of Medicine of the University of Arkansas for Medical Sciences solicits applications and nominations for the position of professor and chair, Department of Microbiology and Immunology. The vacancy has been created by the impending retirement of the incumbent. The department presently consists of ten full-time and five part-time faculty with expansion planned for the future. Active research and educational programs in immunology, molecular virology, and chlamydiology are ongoing. Applicants and nominees should have documented success in research with a record of extramural grant funding as well as experience in education and administration. Applications from women and minority candidate are actively encouraged. The University of Arkansas is an Equal Opportunity/Affirmative Action Employer.

Please send nominations and applications by 15 November 1990 to:

Chair, Microbiology/Immunology Search Office of the Dean, Slot 550 College of Medicine University of Arkansas for Medical Sciences 4301 West Markham Little Rock, AR 72205

### CHAIRMAN, DEPARTMENT OF PSYCHIATRY

The University of Florida, College of Medicine, seeks a distinguished individual to serve as professor and chairman of the Department of Psychiatry. Applicants should have an M.D. degree, a record of significant accomplishments in research, and substantial clinical and administrative skills in psychiatry. Position is available after 1 January 1991. Qualified individuals should send curriculum vitae and complete bibliography by 1 November 1990 to: Dr. Albert L. Rhoton, Jr., Chairman, Psychiatry Search Committee, University of Florida, College of Medicine, Box J-265, Gainesville, FL 32610. An Equal Opportunity/Affirmative Action Employer.

### DEAN SCHOOL OF FOREST RESOURCES THE UNIVERSITY OF GEORGIA

Applications and nominations are invited for the position of dean of the School of Forest Resources. The dean serves as chief administrative officer over the school's instruction, research, and service programs.

school's instruction, research, and service programs.

The School of Forest Resources is a professional school that offers a Bachelor of Science of forest resources degree with concentrations in timber management and utilization, wildlife, forest science, policy and recreation, forest business, soil and water resources, forest biology, and fisheries. Graduate degrees offered include Master of Science, Master of Forest Resources, and Doctor of Philosophy degrees in various specialty areas of natural resources.

The University of Georgia is a state land-grant and sea-grant institution composed of 13 schools and colleges including the graduate school. The university enrolls approximately 27,000 students including undergraduates, graduates, and professional students and has a faculty of some 1,900 members.

Candidates should meet the following qualifications: (i) earned doctorate in a discipline related to forest or

Candidates should meet the following qualifications: (i) earned doctorate in a discipline related to forest or natural resources; (ii) administrative experience in forest or natural resources related activities; (iii) demonstrated leadership ability in dealing with administration, faculty, staff, students, and alumni; (iv) familiarity with the public, private, industrial, and environmental groups associated with natural resources management; (v) significant national and international accomplishments in teaching, research, or service; (vi) qualifications for appointment to the rank of professor; and (vii) commitment to Equal Opportunity/Affirmative Action in employment programs and services

ment to Equal Opportunity/Affirmative Action in employment, programs, and services.

The deanship is a 12-month position with a competitive salary and benefits. The position becomes available 1 July 1991. Complete applications must include a current curriculum vitae plus names and addresses of five references. Applications received by 1 November 1990 will be assured of full consideration. Send to: Dean William P. Flatt, Chair, Search Committee for Dean of School of Forest Resources, 101 Conner Hall, The University of Georgia, Athens, GA 30602.

The University of Georgia is an Equal Opportunity/Affirmative Action Institution.

### **POSITIONS OPEN**

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 (OMMSQA). 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.

### HEAD, PROTEIN CORE FACILITY UNIVERSITY OF MISSOURI-COLUMBIA

The Molecular Biology Program at the University of Missouri seeks an individual with a Ph.D. in biochemistry or a related area, and with experience in peptide chemistry and sequencing, to head its campus Protein Core Facility. This permanent position offers a competitive salary, commensurate with experience, and may also provide opportunities for research and academic advancement with an adjunct appointment as assistant/associate professor. This campus service laboratory will soon add peptide synthesis to its functions of protein purification by HPLC, amino acid composition analysis, and peptide microsequencing.

Applications from women and members of minorities are particularly encouraged. Curricultum vitae and three letters of recommendation should be sent to: Dr. Donald L. Riddle, Director, Molecular Biology Program, 311 Tucker Hall, University of Missouri, Columbia, MO 65211.

### DIRECTOR OF TOXICOLOGY

Tampa Bay Research Institute (formerly Showa University Research Institute) is a nonprofit biomedical research institute established in the state of Florida since 1981.

A director of toxicology is being sought to head up a new animal facility. While the incumbent is given the freedom to pursue the research activities, he/she is expected to have a funded program and a proven record of extramural support.

Interested individuals should send letter of application, a brief statement of research interest, and names of four references by 30 October 1990 to:

Chairman of Search Committee Tampa Bay Research Institute 10900 Roosevelt Boulevard St. Petersburg, FL 33716

### UNIVERSITY OF FLORIDA INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES (IFAS)

Applications and nominations are being sought for the position of DEAN, COLLEGE OF AGRICULTURE/DEAN FOR RESIDENT INSTRUCTION. The dean administers and provides leadership for all phases of the graduate and undergraduate academic programs of IFAS, one of the nation's largest agricultural research and education organizations. The dean is part of the overall IFAS management team and represents IFAS within the University of Florida on all academic matters. Applicants must demonstrate a dedication to excellence in tending hold adoptorate in a field relevant to the in teaching, hold a doctorate in a field relevant to the position, and be qualified for an appointment at the rank of full professor in one of the departments in the college. Experience in administration and program management is desirable. Please send detailed curriculum vitae and the names, addresses, and telephone numbers of five references, along with a letter of application, before 31 October 1990 to: Dr. Burl F. Long, Chair, Search and Screen Committee, 1172A McCarty Hall, University of Florida, Gainesville, Florida 32611.

University of Florida is an Affirmative Action/Equal Opportunity Employer.

### CLINICAL PSYCHOPHARMACOLOGIST

The Mercer University School of Medicine, Department of Psychiatry, is accepting applications for a **DI-RECTOR** of clinical psychopharmacology. Doctoral level pharmacist or pharmacologist with extensive background in coordinating clinical drug trials in schizophre-nia, depression, and dementia required. Opportunities for basic science research also exist. Faculty rank and salary based upon academic achievement. Reply to: William Nelson, M.D., Professor and Chair of Psychiatry, Mercer University School of Medicine, 1550 College Street, Macon, GA 31207. Mercer University is an Equal Opportunity/Affirmative Action Employer.

### DIRECTOR CENTER FOR BIOLOGICS EVALUATION AND RESEARCH

The Food and Drug Administration (FDA) is recruiting for the Director, Center for Biologics Evaluation and Research, located in Bethesda, Maryland. The position is in the Senior Executive Service with a salary range of in the Senior Executive Service with a salary range of \$71,200 to \$81,400. The director, Center for Biologics Evaluation and Research, directs a staff of over 500 physicians, scientists, and support personnel engaged in research and regulatory activities concerned with biological products and blood and blood products. Applicants must have: an M.D. degree from an approved medical school, experience with the inpostition, research and school; experience with the innovation, research and development, production, risk or benefit analysis, utilization, and regulation of biologicals and blood and blood products. He/she must be able to direct and lead a complex, diversified medical or scientific organization; effectively deal with key individuals in the federal and state governments, the medical and academic communi-ties, professional and scientific organizations, consumer groups, and industry; and implement employment and career opportunities for minorities, women, handicarped, and special interest groups. It is desirable that candidates have research or clinical achievements; demonstrated background in the clinical pharmacology of human drugs, biologicals, and blood and blood products; and demonstrated background in biologicals and blood and blood products.

If you are interested and want to be considered, send curriculum vitae or SF-171 Application for Federal Employment to: Jeylene Wood, Division of Human Resources Management, Food and Drug Administra-tion, Parklawn Building, Room 4B-09, 5600 Fishers Lane, Rockville, MD 20857.

If you need more information, you may call Ms. Wood

collect on 301-443-1755.

This position can also be filled by current commissioned officers of the U.S. Public Health Service, or by former officers willing to rejoin the corps.

Applications will be accepted until 31 October 1990.

An Equal Opportunity E. ployer. FDA is smoke free.

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

7 SEPTEMBER 1990

# **Gastrointestinal Research Scientists**

PARKE-DAVIS Pharmaceutical Research Division has several immediate openings in our growing gastrointestinal research environment. Major areas of interest include mucosal diseases (both erosive and inflammatory), motility disorders and the role of growth factors in the GI Tract. Research approaches will be broadly based with diverse technologies including biochemistry, pharmacology, cell biology and imaging.

### Assistant/Sr. Assistant Scientist-GI Research

(Job #90312)

The candidate's primary responsibilities will include participation in in-vivo pharmacology studies in both small (e.g. rat) and large (e.g. dog) animal models of GI diseases. Duties will involve surgery and anesthesia. In addition, tissue culture and radioimmune assay work should be expected. A strong interest in research and a willingness to learn new areas will be essential. A BS/BA or equivalent in experience with 1-2 years' research experience is preferred.

### Sr. Assistant/Associate Scientist-GI Research

(Job #90310)

The candidate's primary responsibilities will involve cell biology/pharmacology research exploiting biochemical and image processing/analysis techniques. Duties will include microscopy, tissue preparation, tissue culture, HPLC and radioisotope work. Observational skills will be important. Some animal work required. A strong interest in research and a willingness to learn new areas will be essential. MS/MA or BS/BA with equivalent in experience with 3+ years' research experience is preferred.

### Assistant/Sr. Assistant Scientist-**Experimental Therapy**

(Job #90342)

The candidate will be involved in studies examining the effects of novel cytoprotective agents on the gastrointestinal tract using animal models and computerized image analysis. Candidate should have a BS degree with 2+ years of laboratory experience. Skill in small animal (rats, mice, etc.) handling, surgery and drug administration essential.

### Sr. Assistant/Associate Scientist-**Experimental Therapy**

(Job #90326)

The candidate will assume a supervisory position in a laboratory examining the pharmacological effects of novel gastric cytoprotective agents. Experience in working with cell culture, in-vivo animal models and microcomputers is essential. Candidate should have some previous supervisory skills and have a strong interest in research. Degree requirements include an MS in the biological sciences and 3+ years of post-graduate laboratory experience.

Interested candidates should send their CV, specifying job number, in confidence to Jack Moyer, PARKE-DAVIS, Pharmaceutical Research Division, Warner-Lambert Company, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment"

"Equal Opportunity in Action"





A DIVISION OF WARNER LANBERT

# DEPARTMENT HEAD DEPARTMENT OF BIOCHEMISTRY COLLEGE OF BIOLOGICAL SCIENCES UNIVERSITY OF MINNESOTA ST. PAUL, MINNESOTA

The Department of Biochemistry, College of Biological Sciences, is seeking highly qualified candidates for the position of department head. This department of 15 faculty is a major research unit that is also responsible for the undergraduate teaching of biochemistry for the entire Twin Cities campus. Teaching of graduate biochemistry is shared among 45 research colleagues in the biochemistry graduate program. Major research efforts in the department encompass molecular biology, molecular biology, enzymology, and biological regulation.

department encompass molecular biology, molecular biophysics, enzymology, and biological regulation.

The department head to be selected will have a strong, continuing record of research accomplishment and will be expected to maintain a vigorous research program that is compatible with the departmental goals and efforts. He/she should also have a demonstrated commitment to undergraduate and graduate education and to implementation of Affirmative Action. The major responsibility of the head will be to provide leadership in the continuing development of a department dedicated to excellence in research and teaching. The appointment will be at the rank of professor with tenure.

Nominations, applications, and expressions of interest are invited and should be communicated as soon as possible. Applications for this position should include curriculum vitae and the names and addresses of three individuals who can be asked to provide letters of recommendation. Applications must be received by 16 November 1990. Please address applications and nominations to: Chair, Search Committee, c/o Bonnie Allen, Department of Biochemistry, College of Biological Sciences, University of Minnesota, 1479 Gortner Avenue, St. Paul, MN 55108. For inquiries directed to the committee chair, telephone: 612-624-7755.

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

### SUPERVISORY FISHERY BIOLOGIST (RESEARCH) GM-0482-14

A permanent position with U.S. Department of Commerce, National Marine Fisheries Service (NMFS), Woods Hole, Massachusetts. Chief of Population Dynamics Branch, with responsibility for formulating, implementing, coordinating, and guiding assessment research program to provide sound scientific basis for management and to efficiently achieve NMFS goals and priorities. Thorough knowledge of population dynamics, mathematics, statistics, computer science, and modeling; understanding of biological characteristics of fish populations that determine their dynamics; potential to develop requisite supervisory skills. Starting salary: \$50,342.

Applications must be received by 28 September 1990.

Applications must be received by 28 September 1990. Contact Kathryn McArthur for information and application forms: Department of Commerce, Eastern Administrative Support Center, Room 411, 253 Monticello Avenue, Norfolk, VA 23510. Telephone: 804-441-6880. The Department of Commerce is an Equal Opportunity/Affirmative Action Employer.

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) DEPARTMENT OF CHEMISTRY FACULTY SEARCH

ASSISTANT PROFESSOR: The Department of Chemistry at the Massachusetts Institute of Technology seeks two assistant professors for July 1991. Outstanding candidates in the area of organic chemistry are invited to send curriculum vitae, publication list, research plan, and statement of teaching interests to:

Professor Mark S. Wrighton Department of Chemistry, 18-399 Massachusetts Institute of Technology 77 Massachusetts Avenue Cambridge, MA 02139

Please also arrange to have three letters of recommendation sent to the same address.

While the preferred level of appointment is at the

While the preferred level of appointment is at the assistant professor level, outstanding, experienced candidates will be considered at the associate or full professor level. Applications should be received no later than 15 December 1990.

MIT is an Equal Opportunity/Affirmative Action Employer and encourages applications from minorities and women.

### **POSITIONS OPEN**

### HERBARIUM COLLECTION MANAGER

The Louisiana State University (LSU) Herbarium, Department of Botany, Baton Rouge, Louisiana, anticipates a full-time position for collection manager. Major duties include specimen preparation and cataloging, plant identification, loan and exchange processing, record keeping, and supervising student workers. B.S. degree required. Preference will be given to candidates with at least a master's degree in botany (vascular plant taxonomy), herbarium work experience, and some familiarity with the regional flora. Deadline for applications: 15 October 1990, or until a suitable candidate is found. Send letter of application, résumé, and three letters of reference to: Lowell E. Urbatsch, Department of Botany, LSU, Baton Rouge, LA 70803–1705. LSU is an Equal Opportunity Employer.

CELLULAR IMMUNOLOGIST/MOLECULAR BIOLOGIST. M.D. or Ph.D. wanted to join immunology group studying human autoimmunity. Experience with cell sorting, B cell cloning, and molecular genetics required. We offer an attractive benefits package including 3 weeks of vacation, sick and holiday pay, and an excellent health care package. For confidential consideration, submit résume to: Vincent Agnello, M.D., Department of Laboratory Medicine, Lahey Clinic Medical Center, 41 Mall Road, Burlington, MA 01805. Equal Opportunity Employer.

### ENVIRONMENTAL ECOLOGIST POSITION

The New Jersey Department of Environmental Protection (NJDEP), Division of Science and Research (DSR), has a new position available for an ecologist. A broad background in the structure and function of both terrestrial and aquatic ecosystems is required. Much of the work will emphasize estuarine systems. The candidate would be expected to conduct research and develop environmental policy on related ecosystem problems; therefore, an interest in environmental issues/problems is critical. Communication, writing, and computer skills mandatory. A Ph.D. is preferred, although an M.S. degree with experience may be considered. DSR is an interdisciplinary group interested in combining research, science, and policy in the nvironmental field. Salary range: \$35,000 to \$40,000 depending on level of candidates experience. Send résumé to: Fredrika C. Moser, NJDEP/DSR, CN-409, Trenton, NJ 08625. An Equal Opportunity/Affirmative Action Employer.

#### TENURE-TRACK FACULTY POSITIONS IN PHARMACOLOGY AT VANDERBILT UNIVERSITY

Applicants for ASSISTANT PROFESSOR should have demonstrated exceptional potential to develop strong independent research programs; senior candidates with ongoing programs of excellence will be considered for positions as ASSOCIATE OR FULL PROFESSOR, as appropriate. Preference will be given to investigators who integrate a variety of experimental approaches (including recombinant DNA, homologous recombination, and transgenic animal strategies) to address fundamental questions in neurobiology. Applicants should send curriculum vitae, three letters of reference, and a description of research interests to: Dr. Lee E. Limbird, Ph.D., Professor, Department of Pharmacology, Vanderbilt University, Nashville, TN 37232. An Affirmative Action/Equal Opportunity Employer.

#### UNIVERSITY OF ALABAMA AT BIRMINGHAM DEPARTMENT OF PEDIATRICS MOLECULAR GENETICS

Applications are invited for two FACULTY POSITIONS in the Laboratory of Medical Genetics. One, at the ASSOCIATE PROFESSOR level, will be as director of the molecular genetics division with responsibilities in research, training, and service, and the other will be as an ASSISTANT PROFESSOR with interest in screening, diagnosis, and genetic counseling for common genetic disorders. Both positions will require M.D., Ph.D., or M.D./Ph.D. degrees with postdoctoral experience.

Applicants should submit curriculum vitae, statement of research goals, and names of three references to: Dr. Wayne H. Finley, Director, Laboratory of Medical Genetics, University of Alabama at Birmingham, UAB Station, Sparks 609, Birmingham, AL 35294.

An Equal Opportunity/Affirmative Action Employer.

### **POSITIONS OPEN**

#### ANATOMY FACULTY

Full- or part-time faculty to teach gross anatomy, histology, and neuroanatomy to medical students. Appointment 1 January 1991. Teaching experience and commitment to excellence in medical education essential. Send curriculum vitae and names of referees to:

Dr. E. Hazel Murphy Department of Anatomy The Medical College of Pennsylvania (MCP)/EEPI 3200 Henry Avenue Philadelphia, PA 19129

MCP is an Affirmative Action/Equal Opportunity Employer.

TENURE-TRACK BIOCHEMISTRY POSITION. Rank open, fall 1991. Candidates should have an expertise in biochemistry, immunochemistry, and medical biochemistry. Teaching may include upper division lecture/laboratory courses and graduate courses. Candidate is expected to establish a research program in immunochemistry and be knowledgeable in techniques using protein antigen/antibody reactions, tissue/hybridoma cultures, and monoclonal antibodies. Further information and application forms can be obtained from: Chairman, Department of Chemistry, San Jose State University (SJSU), San Jose, CA 95192–0101. Interviews will commence after 15 November 1990 and continue until the position is filled. Minorities and women are strongly encouraged to apply. SJSU is an Equal Opportunity/Affirmative Action Employer.

### DEVELOPMENTAL BIOLOGIST

The Department of Biology at the University of Rochester invites applications for tenure-track positions in the area of developmental biology. Candidates should have shown excellence in research and have a commitment to teaching at the graduate and undergraduate levels. Applications will be considered from individuals working in any developmental system, who use the methods of genetics, cell biology and/or molecular biology to investigate basic developmental phenomena. Applicants should send curriculum vitae, a statement of research interests, and have three letters of recommendation sent to:

Dr. R. C. Angerer, Chairman Developmental Biology Search Committee Department of Biology University of Rochester Rochester, NY 14627

Closing date for applications is 31 December 1990. The University of Rochester is an Affirmative Action/Equal Opportunity Education Institution. Women and minorities are encouraged to apply.

# SEARCH REOPENED FACULTY POSITION IN TOXICOLOGY UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA) SCHOOL OF PUBLIC HEALTH

The Department of Environmental Health Sciences of the UCLA School of Public Health invites applications for a tenure-track faculty position in toxicology. Emphasis will be on an appointment at the PROFESSORIAL LEVEL although an appointment at the ASSOCIATE PROFESSOR level will be considered. The candidate should have an established scientific reputation with national and international standing; a strong background in chemistry, biochemistry, or the basic biological sciences; and research interests in biochemical or environmental toxicology. The appointee will be responsible for expanding the research and teaching program in toxicology at the School of Public Health and will interact with faculty in the department, the UCLA Occupational Health Center, and the Environmental Science and Engineering Program.

Qualified individuals should send curriculum vitae and

Qualified individuals should send curriculum vitae and the names and addresses of three references to: Dr. John R. Froines, Chair, Search Committee, Department of Environmental Health Sciences, UCLA School of Public Health, Los Angeles, CA 90024–1772.

The University of California is an Affirmative Action/Equal Opportunity Employer and will welcome applications from members of minority groups and women. Applications will be received until 1 October 1990.

Under federal law, the University of California may employ only individuals who are legally authorized to work in the United States as established by providing documents specified in the Immigration Reform and Control Act of 1986.

# Faculty Positions Department of Molecular Biology and Biochemistry Rutgers, State University of New Jersey

The Department of Molecular Biology and Biochemistry at Rutgers, New Brunswick (Busch campus) invites applicants for several tenure track positions. The Department is expanding in several areas, including RNA splicing, DNA replication, transcriptional control, receptors and signal transduction. These processes may be studied in various systems, including higher eukaryotes, yeast and viruses. Strong candidates in other areas will also be considered. This Department, which was recently established, is an important part of the expanding program in molecular biology at the Busch campus, where the Center for Advanced Biotechnology and Medicine, the Waksman Institute, and the Robert Wood Johnson Medical School are also located. The positions offered are highly competitive with regard to start-up funds, laboratory space and

Candidates should have postdoctoral experience and demonstrate ability to develop an independent, imaginative research program. Applications should include a curriculum vitae, a list of publications, a summary of research activities and research plans, and three letters of recommendation.

Applications should be addressed to:

Dr. Robert M. Krug, Chairman Department of Molecular Biology and Biochemistry Rutgers University

Center for Advanced Biotechnology and Medicine 679 Hoes Lane

Piscataway, NJ 08854-5638

Rutgers University is an Equal Opportunity/Affirmative Action Employer.

### **BROOKHAVEN NATIONAL LABORATORY**

# **Chemistry Department Scientific Staff Vacancy**

The Cyclotron-PET Program at Brookhaven National Laboratory has a staff opening for a synthetic chemist to oversee the routine production and analytical and quality control of short-lived positron emitter labeled radiopharmaceuticals for human studies. Applicants should have a Ph.D. in synthetic, pharmaceutical or medicinal chemistry and should have experience in handling and assay of radioactivity and in the preparation, quality control and documentation of radiopharmaceuticals for human use and the preparation of investigative new drugs. The position will involve collaboration with a multidisciplinary group of scientists in the development of analytical control procedures for new radiopharmaceuticals which are to be introduced into the clinical research program and the development of streamlined, rapid methods for the analysis of labeled compounds in biological fluids.

The Cyclotron-PET Program at Brookhaven is multidisciplinary, focusing on the development and application of new radiopharmaceuticals to problems in neurology, psychiatry, and cardiology with a special emphasis on the study of the neurochemical problems associated with substance abuse. High technology facilities include two cyclotrons and two positron emission tomographs as well as a fully equipped laboratory for rapid synthesis and analytical control of short-lived radiotracers.

Brookhaven offers a stimulating research environment and excellent benefits. Interested applicants should send resumes and the names of three references to: Dr. Alfred P. Wolf, Chemistry Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, New York 11973. Equal opportunity employer M/F.



### Molecular, Cellular, & Developmental Biology University of Colorado, Boulder, Colorado

### Faculty Positions in Developmental Biology

We are seeking at least one tenure track Assistant Professor in the general area of developmental biology. We will consider only those candidates who have demonstrated outstanding research ability. In addition, we will consider teaching ability and interaction with colleagues. Preference should be given to candidates at the assistant professor level, but candidates at all levels will be considered. Candidates should have a resume, reprints, an outline of proposed research, and three letters of reference sent to: Developmental Biology Search Committee, Department of MCD Biology, University of Colorado at Boulder, Boulder, CO 80309-0347. Dossiers must be complete by 15 October 1990, but earlier applications will be considered promptly. Applicants who wish to postpone their arrival in Boulder until 1992 will be considered.

### Faculty Positions in Cell & Molecular Biology

Our department is expanding into new areas of research by recruiting a substantial number of new faculty. At this time we are seeking at least one tenure track Assistant Professor position in the fields of cell and molecular biology over the next two years. We will consider only candidates who have demonstrated outstanding research ability. Preference should be given to candidates at the assistant professor level, but candidates at all levels will be considered. Other selection criteria will include promise of proposed research, teaching ability, and interaction with colleagues. Candidates should have a resume, reprints, an outline of proposed research, and at least three letters of reference sent to to:

The Cell and Molecular Biology Search Committee, Department of MCD Biology, University of Colorado at Boulder, Boulder, CO. 80309-0347. Dossiers must be complete by 15 October 1990.

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

### MOLECULAR BIOLOGIST BIOCHEMIST

### ASSISTANT MEMBER LEVEL

he Department of Biochemistry is seeking an individual who can carry out an independent research program in the area of transcriptional control of eukaryotic gene expression.

Candidates should have postdoctoral training and preferably experience with *in vitro* transcription systems and regulatory factors. It is hoped that the candidate's research will complement one or more of the existing research programs in the Institute, including, but not limited to, membrane biochemistry, receptors and signal transduction.

Institute staff enjoy total freedom and independence in their choice and pursuit of research problems, as well as a competitive salary and generous support for supplies, equipment and personnel. The Institute is located in a suburban setting only 10 miles west of New York City. Send curriculum vitae, names of three references and summary of research interests, to: Herbert Weissbach, PhD, Director, Roche Institute of Molecular Biology, Nutley, New Jersey 07110. We are an equal opportunity employer.

Roche Institute of Molecular Biology



Hoffmann-La Roche Inc

Cell Genesys, Inc. is a new, well-funded and rapidly growing biotherapeutic company in the San Francisco Bay Area that develops cellular and protein therapeutics based on homologous recombination and related technologies. We have an outstanding team of academic advisors and collaborators and encourage the publication of important scientific findings. Unique opportunities exist in our state-of-theart research facilities for dedicated scientists who possess the following credentials:

Cell Biologists

To investigate the regulation of cell growth, differentiation and senescence, and develop methods for the characterization of cell types useful for human therapy. A strong background in cell biology and mammalian cell physiology is required, preferably with experience in primary mammalian cell tissue culture and familiarity with various cell types. Experience in somatic cell genetics, flow cytometry, histochemistry, and methods for the characterization of macromolecular synthesis. 2-6 years' postdoctoral experience with a strong record of achievement.

**Transplantation Immunologists**To investigate the role of MHC antigens in the rejection and tolerance of transplanted allogeneic cells. A strong background in transplantation biology and immunology is required, preferably with experience in murine and/or human immunogenetics. Familiarity with microsurgical techniques and various animal transplantation models is also desirable. 2-6 years' postdoctoral experience with a strong record of achievement.

Cellular Immunologists

To investigate cellular and humoral mechanisms of immunity and immunodeficiency in novel mutants of the murine immune system produced by gene targeting. A strong background in cellular immunology with experience in the isolation and characterization of immune effector cells is required. Experience in flow cytometry, hybridoma technology and molecular characterization of the B cell repertoire also desirable. 2-6 years' postdoctoral experience with a strong record of achievement.

We offer competitive salaries, excellent benefits and equity participation. For immediate consideration, please send your curriculum vitae to: Cell Genesys, Attn: Technical Recruiting, Dept. S907, 344 A Lakeside Drive, Foster City, CA 94404. We are an equal opportunity employer.

CELL GENESYS, INC.

# UCL

### **UNIVERSITY COLLEGE LONDON**

# S A COURTAULD CHAIR IN BIOCHEMISTRY

Applications are invited for UCL's premier Chair of Biochemistry tenable in the College's Department of Biochemistry and Molecular Biology.

This Department has a key role in the newly enlarged UCL Faculty of Life Sciences and in that Faculty's relationship with two new Research Institutes to be funded at UCL in the field of Molecular and Cell Biology.

Against this background, scientists with an international reputation in any field of Biochemistry or Molecular Biology are encouraged to apply. Future appointment as Head of Department is desirable but not obligatory.

Further particulars on the composition and present research interests of the Department, and an outline of development plans for molecular and cell biology at UCL, may be obtained from Dr M A Rosemeyer, Department of Biochemistry and Molecular Biology.

Applications (10 copies) including a *curriculum vitae* and the names and addresses of 3 referees should be sent to the Provost, University College London, Gower Street, London WC1E 6BT by 12 October 1990.

Equal Opportunity Employer

### Faculty Positions in DRUG METABOLISM

St. Jude Children's Research Hospital, a private research institute, is engaged in a major expansion of its facilities and scientific activities. A new research building to be completed in early 1991 will provide 240,000 square feet of new laboratory space which will house the institute's basic science programs. As part of this expansion, new faculty positions are now available in the Pharmaceutical Division. Applications will be considered from those who have recently completed postdoctoral training and are seeking positions at the level of Assistant Member (Assistant Professor), as well as more senior investigators with appropriate research interests and qualifications for positions of higher faculty ranks. Candidates with programs focusing on the biochemical and molecular mechanisms of drug metabolism and disposition are particularly encouraged to apply. Opportunities exist for collaborative interactions with ongoing basic research programs in Biochemistry, Molecular Biology, Immunology, and Pharmacology, as well as with clinical investigators in Hematology/ Oncology and Infectious Diseases. The Pharmaceutical Division has excellent instrumentation, extensive extramural and intramural funding, and access to numerous shared research resources. In addition to new facilities and excellent start-up funds, salaries are nationally competitive and include a generous benefits package. A strong institutional commitment to its faculty ensures stability in program development and continuity of research activities.

Applicants should submit a curriculum vitae, a letter summarizing their research accomplishments and goals, and the names of three references to: Dr. William E. Evans, Chairman, Pharmaceutical Division, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38105-2794 USA



St. Jude Children's Research Hospital is an Equal Opportunity/Affirmative Action Employer

### University of Guelph College of Biological Science Department of Nutritional Sciences

The Department of Nutritional Sciences invites applications for a tenure track position as an Assistant Professor. The position involves teaching undergraduate and graduate students and the development of an independent research program in nutritional sciences. A Ph.D. or equivalent degree in nutritional sciences or a related discipline such as biochemistry, cell biology, molecular biology, or physiology is required. Preference will be given to applicants with experience in teaching and post-doctoral research.

The Department of Nutritional Sciences concentrates on experimental nutrition at all levels of biological organization and is a member of the College of Biological Science which encompasses academic interests ranging from molecular biology to ecology. Examples of current research interests include the role of nutrients in biological membranes, in detoxification processes, in the control of inter-organ nutrient partitioning and in regulation of immune function.

The successful applicant will be expected to develop a laboratory based program to define processes by which health and development are influenced by diet and food. Examples of suitable subjects for such a program could be nutrition and neural function, aging, cancer, transport and cell communication.

Applications should include a curriculum vitae, a list of publications and names of three referees and be sent to:

Dr. Henry S. Bayley
Department of Nutritional Sciences
University of Guelph
Guelph, Ontario
Canada N1G 2W1

Closing date for applications is October 31, 1990

The University of Guelph is committed to an Employment Equity Program which includes special measures to achieve diversity among its faculty and staff. In that spirit, we particularly welcome applications from qualified members of under-represented groups including aboriginal Canadians, persons with disabilities, members of visible minorities and women.

This position is subject to final budgetary approval. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

# ENDOWED CHAIR IN ALZHEIMER'S RESEARCH

The University of South Florida is seeking a highly qualified neuroscientist to fill the newly-established Eric Pfeiffer Endowed Chair in Alzheimer's Disease Research. This is a tenure earning position within the College of Medicine. The Chairholder will direct the Alzheimer's Disease research program at the Suncoast Gerontology Center in its new 2,000 sq. ft. laboratory.

Applicants should have well-established expertise in neurochemistry, neuroimmunology, neurobiology, pharmacology, neuropathology, genetics or other disciplines relevant to the study of Alzheimer's Disease. Applicants should be fully conversant with current research on Alzheimer's Disease and prepared to conduct innovative research on the etiology of Alzheimer's Disease, to identify risk factors, or to develop treatments. Applicants should also have an established track record of securing major grant support, as a principal investigator, for research on Alzheimer's Disease or related subjects. Salary is competitive and negotiable.

Interested applicants should submit a letter of application, curriculum vitae and a brief (3-5 pages) precis of intent and ability with regard to research on Alzheimer's Disease. Please apply by Nov. 15, 1990 to:

The Chair of the Search Committee
University of South Florida
Suncoast Gerontology Center
12901 Bruce B. Downs Boulevard MDC 50
Tampa, Florida 33612

According to Florida law, applications and meetings regarding the position are open to the public. USF is an Equal Opportunity Employer.

# BIOLOGICAL PROCESS SCIENCES

SmithKline Beecham, a world leader in pharmaceutical research, has the following opportunities for Scientists in our expanding Biological Process Sciences department.

# Assay development scientist

The selected individual will be involved in the development of procedures for the quantification and characterization of rDNA derived proteins produced in microbial systems. The techniques used in this work include a variety of immunoassay procedures and electrophoretic techniques. To qualify for this position you should have a Bachelor's degree in Biology, Biochemistry or a related field and two or more years' experience with immunoassay (e.g. ELISA, RIA) development. Experience with VAX and PC-based data analysis systems and laboratory automation is preferred. Good oral and written communication skills are essential. (Please refer to Position #G0142)

### BIOSEPARATIONS SCIENTIST

The individual in this position will focus on the development of cell lysis, protein refolding and chromatography steps in a process development lab and pilot plant environment. The selected candidate will also participate in recovery and purification process development of recombinant proteins from E. coli, perform scale up steps from bench scale to pilot scale production and purify proteins in accordance with GMP's. To qualify for this position, a candidate should have a B.S./M.S. degree in biochemistry or biochemical engineering and 0-5 years' experience in protein refolding or recovery. A background in large scale cell disruption, harvesting and chromatography or experience with the production of therapeutic proteins is desired. Excellent written and oral communication skills required. (Please refer to Position #G0143)

We offer a competitive compensation and benefits package and a stimulating environment in which to grow and excel. For confidential consideration, send your resume, referencing position number to: T. Gallagher, Senior Employment Administrator, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.



Boston University is seeking qualified applicants for FACULTY POSITIONS in the Department of Aerospace and Mechanical Engineering in the following areas: (i) fluid dynamics of turbulent or particulate flows, (ii) combustion/propulsion, (iii) structural dynamics of composite materials. Candidates must hold an earned doctorate in an appropriate engineering discipline. Applicants for senior faculty rank will be expected to have a distinguished record of research and publication, be internationally recognized in their fields of specialization, and have documented access to a very strong base of research support. Nominations and applications will be accepted until the positions are filled. Correspondence should be forwarded, in confidence, to: Professor Daniel Udelson, Chairman, Aerospace and Mechanical Engineering, Boston University, Boston, MA 02215. Telephone: 617-353-2877. An Equal Opportunity/Affirmative Action Employer.

### FACULTY POSITION CHROMOSOME STRUCTURE-FUNCTION

As part of a program in chromosome structure-function, the Department of Biology of the Beckman Research Institute of the City of Hope is seeking candidates for two tenure-track faculty positions at the ASSIST-ANT RESEARCH SCIENTIST level (equivalent to an assistant professor appointment at a university). Candidates should have a Ph.D. or equivalent degree and at least 2 years of postdoctoral experience. Chromosome structure-function will be interpreted broadly and will include such areas of research as homologous recombination, transgenic animals, cell cycle, meiosis, and DNA replication, as well as higher order chromosome structure.

The Beckman Research Institute of the City of Hope is a nonprofit, basic research facility affiliated with the City of Hope Medical Center. The Division of Biology is comprised of 15 full-time faculty members. Other major divisions of our Beckman-endowed research institute include immunology and neurosciences. The campus is located in a suburban community in the greater Los Angeles area, at the base of the San Gabriel mountains, but near to major academic and culture centers. Interested persons should send a letter, curriculum vitae, statement of research interests, and the names, addresses, and telephone numbers of three professional references to: Dr. Arthur D. Riggs, Search Committee, Department of Biology, Beckman Research Institute of the City of Hope, 1450 East Duarte Road, Duarte, CA 91010.

FACULTY POSITIONS. MOLECULAR AND CELL BIOLOGY, PENNSYLVANIA STATE UNIVERSITY. Applications are invited for faculty positions at any rank in the Department of Molecular and Cell Biology. We seek exceptional candidates whose research interests encompass any area of molecular and cell biology, but special consideration will be given to those whose research complements our areas of strength and future interest, to include (i) cellular and developmental regulation in prokaryotic and eukaryotic systems, including gene regulation, signal transduction, receptors and growth factors; and (ii) macromolecular structure/function relationships. Candidates with academic training in bacteriology and/or virology are especially encouraged to apply.

apply.

Candidates are expected to have exceptional research credentials and a commitment to teaching at the graduate and undergraduate levels in one or more of the disciplines represented by the department. The department is contemporary and vigorous and is responsible for research and teaching programs in biochemistry, microbiology, and molecular and cell biology. The department has 30 research faculty and 80 graduate students. We maintain an aggressive research environment and encourage cooperative and interdisciplinary projects within and outside the department. Strong interactions exist with the chemistry and biology departments, the College of Agriculture, and the newly established Biotechnology Institute, with which joint appointments may be possible. Applications will be reviewed starting 8 October 1990 and continue until the positions are filled. Candidates should submit a résumé including a statement of research interests and goals and telephone numbers of at least three references to: Chairman of the Search Committee, Department of Molecular and Cell Biology, 108S Althouse Laboratory, The Pennsylvania State University, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

### **POSITIONS OPEN**

FACULTY OPENINGS AT THE EVERGREEN STATE COLLEGE. Evergreen seeks broadly trained faculty interested in teaching in an interdisciplinary, liberal arts curriculum: (i) ECOLOGIST. Thorough knowledge of field techniques required, knowledge of Pacific Northwest forest ecology a plus, and experience with Central American tropical ecology. (ii) GEOGRA-PHER. Expertise in resource, cultural, physical, or economic geography, to teach both in MES and the undergraduate curriculum. Experience in research methods and statistics required. (iii) PHYSICAL CHEMISTRY. Physical chemistry background a must; experimental interest preferred. (iv) PHYSICS. Experimental hackground or energy studies a plus. Each position requires a master's degree, with Ph.D. preferred. Each is continuing, with length of initial contract determined by experience. For application procedures, write to: Faculty Hiring Coordinator, The Evergreen State College, Olympia, WA 98505, or call: 206-866-6000, ext. 6407. Review will begin 1 November 1990.

University of California, Irvine. FACULTY POSITIONS IN ORGANIC CHEMISTRY. Three positions are available this year and all levels of appointment and areas of research will be considered. At least one of the appointments will be made at the ASSISTANT PROFESSOR level. Candidates for appointments at the ASSOCIATE AND FULL PROFESSOR ranks must present evidence of outstanding accomplishments in research and be recognized nationally and internationally; for assistant professor applicants, there must be visible prospects for future excellence. The ability to effectively teach at the undergraduate and graduate levels is a requirement for all appointments. Candidates should submit complete curriculum vitae, publication list, and a brief statement of research interests. Applications for assistant professor appointments must also arrange for letters of recommendation from at least three professional referees. Applications should be sent to: Professor Kenneth J. Shea, Organic Search Committee, Department of Chemistry, University of California, Irvine, CA 92717. To ensure full consideration, applications should be received by 15 October 1990. The University of California is an Affirmative Action/Equal Opportunity Employer. The Department of Chemistry is particularly interested in receiving applications from minority and female candidates.

#### MOLECULAR BIOLOGY OF THE ANIMAL VIRUSES JUNIOR AND SENIOR FACULTY POSITIONS AVAILABLE

The Department of Microbiology and Immunology in the College of Medicine at The University of Tennessee, Memphis, invites applications for several junior and senior level, tenure-track positions focusing on the molecular analysis of significant problems in animal virology. Senior candidates should have a strong record of research accomplishment with sustained program growth and development. Junior candidates will be expected to develop a high-quality, independent research program with long-term growth potential. Teaching responsibilities, which emphasize quality rather than quantity, include medical, dental, and graduate students. The University of Tennessee, Memphis, is well into a major growth phase. The department has recently moved into a completely renovated building and will be appointing at least five new faculty during the next several years. New faculty are also being appointed in the Departments of Anatomy. Pharmacology and Riochemistry.

faculty are also being appointed in the Departments of Anatomy, Pharmacology, and Biochemistry.

A large Center of Excellence grant has resulted in establishment of a Molecular Resource Center within the department featuring state-of-the-art facilities for: oligonucleotide synthesis, peptide synthesis, monoclonal antibody production, amino acid analysis, protein sequencing, polymerase chain reaction, molecular graphics, and flow cytometry. Funds for the initiation of research programs will be available and salaries will be highly competitive.

Applications will be received until 1 October 1990, or until the position is filled thereafter. Applications should consist of curriculum vitae, copies of several recent publications, a brief statement of future research goals, and three letters of reference to be sent to:

Dr. Terrance G. Cooper
Department of Microbiology and Immunology
The University of Tennessee, Memphis
858 Madison Avenue, Room 801
Memphis, TN 38163

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

# **Scientist**

### San Francisco Bay Area

ALZA Corporation, the leader In developing innovative drug delivery systems, is seeking an experienced, enthusiastic scientist in the field of protein chemistry.

As a member of a growing team, you will explore a broad range of opportunities to administer peptides and proteins. This research includes a variety of chemical, physical and biological approaches that will lead to successful commercial products.

Ph.D. in Biochemistry with a strong emphasis on protein chemistry, with 3-6 years post-doctoral experience required.

For immediate consideration, please send your resume to: ALZA, Employment Department, 950 Page Mill Road, P.O. Box 10950, Palo Alto, CA 94303-0802. We are an Equal Opportunity Employer.

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# Molecular Neurobiologist Medicinal Chemist

Alzheimer's Research Center for Clinical and Basic Research

### Medical College of Georgia

The Medical College of Georgia Department of Pharmacology and Toxicology invites applicants for two tenure-track positions working with the university's Alzheimer's research center.

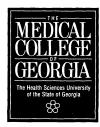
A molecular neurobiologist is sought who will bring an independent program and also interact with basic science and clinical faculty in activities such as basic studies of etiology, new therapeutic approaches and novel diagnostic procedures. This position is available, depending on experience, at the rank of assistant, associate or full professor.

A medicinal chemist at the level of assistant professor is needed with strong interests in the development of drugs acting on the central nervous system. This faculty member will be encouraged to develop his own research as well as collaborate with various research efforts in the Alzheimer's research center. One area of collaborative research will be the development of test compounds and potential pharmacologic agents to enhance learning, memory and cognition in animal models.

Both new faculty members will participate in the education of medical and graduate students. Substantial support in terms of equipment, supplies and personnel will be provided for both new positions.

Candidates for these positions may send a curriculum vitae, description of research activities and three references to:

Dr. Jerry Buccafusco, chairman Search Committee Department of Pharmacology and Toxicology Medical College of Georgia Augusta, Georgia 30912–2300



The Medical College of Georgia is an affirmative action/equal opportunity employer.

# Protein/Biomolecular NMR Spectroscopist

Strong growth in the areas of molecular genetics and peptide research has created exceptional opportunity with Pfizer Inc, a Fortune 100 multinational leader in pharmaceutical research and healthcare products.

In this position, you will be responsible for equipping and launching a new laboratory dedicated to biomolecular problems. As part of a high-profile multidisciplinary team supporting discovery efforts within Central Research, you will work with instrumentation that consists of seven high field NMR spectrometers ranging from 250-500 MHz. Your investigations into drug structures/interactions with proteins and other macromolecules in solution will be the basis for the development of molecular modeling as a tool for drug discovery.

To qualify, you must have a PhD and postdoctoral experience in the application of NMR to structural studies of proteins and other biomolecules. Requires a strong fundamental background in NMR, knowledge of higher level computer programs for solving structure problems, familiarity with molecular modeling needs, and expert communication skills.

We offer a stimulating professional environment in an attractive Connecticut shore area complemented by a competitive salary/benefits package. If qualified, please submit a detailed resume with salary history/requirements in confidence to: Mr. Charles P. Norris, Supervisor Employee Resources, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, CT 06340. An equal opportunity employer.



The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) needs two International Associate Scientists to work at ICRISAT Center, India

### Post 1: LEGUMES CELL BIOLOGY

(Readvertisement; previous applicants need not apply)

The appointee will be involved in transferring desirable genes into cultivated groundnut, chickpea, and pigeonpea. Sources will be wild relatives and a range of genes from other organisms, including viral genes. He/she will work in close cooperation with scientists from the Institute's Legumes Agronomy, Breeding, Pathology, Virology, Entomology, and the Genetic Resources and Biochemistry Units; and cooperate with national and international biotechnology programs in the exchange of ideas and new technologies.

Essential qualifications: A doctorate in plant sciences with at least 2 years postdoctoral experience, with experience in one or more of the following: wide crosses, tissue culture, molecular biology, and/or transformation is essential. Experience in purification of plant viruses, and in sequencing viral nucleic acids is desirable.

For both posts, ability to work with national and international scientists from a range of disciplines, and an excellent command of English are required. Age: 38 years or below.

Employment is for 2 years in the first instance, with possibility of extension for an additional 3-year period. Salary and related benefits are free of local tax for expatriates and commensurate with comparable international positions. The institute has links with some 50 developing countries with a semi-arid climate. ICRISAT Center is located at Patancheru, 30 kms from Hyderabad, the sixth largest city in India with airline connections, good medical facilities, and an international primary school.

Send resume and the names of three referees within 1 month to: Director General, ICRISAT, Patancheru, A.P. 502 324, India.

### Post 2: VIROLOGY

The appointee will be involved in cloning viral nucleic acids, the preparation of suitable constructs utilizing A. tumefaciens plasmids, and the study of expression of viral genes after infection with A. tumefaciens. He/she will be expected to maintain close liaison with ICRISAT's Cell Biology Unit and with other molecular and cell biology research laboratories in Hyderabad.

Essential qualifications: A doctorate in plant pathology (virology) or plant molecular biology with at least 3 years postdoctoral experience and authorship of publications in reputed journals. Expertise in nucleic acid extractions, analysis, restriction mapping, preparation of complementary DNA, labeling by random priming and nick translation etc.

FACULTY POSITIONS IN NUTRITIONAL BIOCHEMISTRY. The Department of Nutrition of Case Western Reserve University is undergoing major expansion at Mount Sinai Medical Center in Cleveland. We seek four investigators working on the regulation of the pathways of nutrient metabolism, in humans and in animal models. Candidates are expected to develop independent research programs using modern techniques of stable isotope technology, biochemistry, or molecular biology. They will teach at the graduate level and train graduate and postdoctoral students. Submit curriculum vitae, representative reprints, description of research plans, and three letters of reference to: Dr. Henri Brunengraber, Chairman, Department of Nutrition, Case Western Reserve University, Cleveland, OH 44106. Case Westem Reserve University is an Equal Opportunity Employer. Women and members of minority groups are encouraged to apply.

#### POSITIONS AVAILABLE WITHIN THE DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA)

The Department of Pathology and Laboratory Medicine at the University of California, Los Angeles, has openings for two FACULTY MEMBERS in the Division of Anatomic Pathology/Surgical Pathology Section. The successful applicants will be well-trained surgical pathologists with evidence of a developing or established

independent research program and experience in teaching. All faculty at UCLA are expected to have an area of special expertise and the department is especially interested in candidates with fine needle aspiration/cytology; bone and soft tissue pathology; pathology of the ear, nose, and throat; and pediatric pathology interests. This is not an exhaustive list and other areas of relevant specialization will be considered carefully. The successful appointees will be offered an academic appointment in the University of California, consistent with their experience and stage of professional development. Applicants should submit curriculum vitae, bibliography, and the names and addresses of four referees to: Alistair Cochran, M.D., Chair, Search Committee for Surgical Pathologists, Department of Pathology, UCLA School of Medicine, Los Angeles, CA 90024–1732.

The University of California is an Equal Opportunity Employer and applications from women and minorities are encouraged.

# INTEGRATIVE BIOLOGY DEPARTMENT UNIVERSITY OF CALIFORNIA AT BERKELEY

Applications are invited for two tenure-track positions. Candidates should have demonstrated excellence, originality, and productivity in research and should have a strong interest in undergraduate and graduate teaching.

COMMUNITY ECOLOGY: Assistant, Associate, or Full Professor. Research interests should include biotic and abiotic processes that structure multispecies assemblages of animals, or animals and plants. Research programs that integrate theory and experimental field studies are of special interest.

studies are of special interest.

• INVERTEBRATE ZOOLOGY: Assistant Professor. Research should be an exemplar of the power of using invertebrate systems to answer important questions in modern organismal, ecological, or evolutionary biology. Possible interests include, but are not limited to, biophysical ecology, reproductive biology, and evolution of life history.

The new Department of Integrative Biology emphasizes interdisciplinary approaches to basic questions at the interface of evolutionary biology, ecology, and organismal form and function. It will be housed in the reconstructed Life Sciences Building

reconstructed Life Sciences Building.

Applicants should submit curriculum vitae, a bibliography, a statement of teaching and research interests, three representative reprints, and three letters of recommendation to: The Community Ecology Search Committee or The Invertebrate Zoology Search Committee, Department of Integrative Biology, Mulford Hall, University of California, Berkeley, CA 94720. The closing date for acceptance of applications is 31 October 1990.

The University of California is an Affirmative Action/Equal Opportunity Employer. We strongly encourage applications from women and underrepresented minorities.

### **POSITIONS OPEN**

### MOLECULAR BIOLOGIST

A full-time FACULTY POSITION at a junior level is available at the Kresge Hearing Research Institute, Department of Otolarvngology, The University of Michigan Medical School. Applicants should have a Ph.D. in molecular biology, biochemistry, or related area and postdoctoral experience in molecular biology. The new faculty member is expected to develop a strong independent research program and to interact with investigators studying cell regulation and the function of dysfunction of the auditory system. The successful candidate will also be considered for a joint appointment in the Department of Biological Chemistry and will have access to facilities for all aspects of molecular biology research. Please send curriculum vitae, statement of research interests, recent publications, and names of three references to: Dr. Jochen Schacht, Search Committee Chair, Kresge Hearing Research Institute, The University of Michigan, 1301 East Ann, Ann Arbor, MI 48109—0506. Women, minority, and handicapped applicants welcome and encouraged.

### MOLECULAR NEUROBIOLOGIST STANFORD UNIVERSITY

The Department of Biological Sciences at Stanford University invites applications for a tenure-track FAC-ULTY POSITION in molecular neurobiology. Applications will be considered at any level from individuals with a demonstrated commitment to research and teaching. Possible areas of research interest include, but are not restricted to, neuronal development, signal transduction in the nervous system, and synaptic transmission. The successful candidate will be expected to participate in undergraduate and graduate teaching. Applications are encouraged from women and minority candidates. Applicants should send curriculum vitae, a letter summarizing research and teaching goals, selected reprints, and the names and addresses of three to five references to: Chair, Molecular Neurobiology Search Committee, Department of Biological Sciences, Stanford University, Stanford, CA 94305–5020. Stanford University is an Equal Opportunity/Affirmative Action Employer.

The Anatomy Department of the Medical College of Ohio has openings for NEUROBIOLOGISTS who are studying neural organization or development at the molecular, cellular, or system level. Appointments may be either tenured or tenure track with teaching responsibility in neurobiology, microanatomy, or gross anatomy. Applicants for assistant professorship should have demonstrated the ability to establish an independent and funded research program. Applicants for more senior appointments should have ongoing and funded programs. The medical college offers excellent research facilities and very competitive salaries and start-up funds. Faculty hired in the upcoming year will join a growing neuroscience group which will be expanded by subsequent recruitment. Forward curriculum vitae and the names of three references to: Dr. John T. Wall, Faculty Search Committee, Department of Anatomy, Medical College of Ohio, Toledo, OH 43699. Equal Opportunity Employer.

NEUROLOGIST/CLINICAL NEUROPHYSI-OLOGIST/EPILEPTOLOGIST. Direct EEG Department and Comprehensive Epilepsy Program at university-affiliated private hospital. Major interest in research and the surgical treatment of epilepsy. Board-certified in neurology and electroencephalography (ABQEEG). Previous experience essential, including EEG and video monitoring and electrocorticography. Send curriculum vitae and a simple statement of interest to: Robert M. Herndon, M.D., Department of Neurology, Good Samaritan Hospital and Medical Center, 1015 N.W. 22nd Avenue, Portland, OR 97210. Good Samaritan Hospital and Medical Center is an Equal Opportunity/Affirmative Action Employer.

EEG Systems Laboratory has an opening for a NEU-ROSCIENTIST/ENGINEER to coordinate study of nonlinear dynamics of mass neural action in the human brain. Position requires: proven expertise in digital signal processing, neural-network pattern recognition, and programming in C under UNIX; postdoctoral expertise in physiological data collection and analysis; ability to manage people and complex projects; knowledge of human brain, neurophysiology, cognitive science, and nonlinear dynamics. Send curriculum vitae to: EEG Systems Laboratory, 51 Federal Street, #401, San Francisco, CA 94107.

### **POSITIONS OPEN**

### PLANT MOLECULAR BIOLOGIST

The Department of Biology at Colorado State University invites applications for a tenure-track, research/teaching position in the area of gene structure, expression, and regulation.

Qualifications: A Ph.D. in plant science, biochemistry,

Qualifications: A Ph.D. in plant science, biochemistry, genetics, or a related area, postdoctoral experience preferred; demonstrated expertise in plant biology; evidence of potential for independent and innovative research; and a willingness to cooperate with the broad spectrum of biologists present on campus.

a willingness to cooperate with the broad spectrum of biologists present on campus.

To apply, please send a letter stating your research and teaching interests, curriculum vitae, copy of transcripts, three letters of recommendation, and three publications before 26 October 1990 to: F. B. Reeves, Plant Molecular Biology Search Committee, Department of Biology, Colorado State University, Fort Collins, CO 80523.

Ethnic minorities and women are encouraged to apply. Colorado State University is an Affirmative Action/Equal Opportunity Employer. Equal Opportunity Office: 314 Student Services Building.

PLANT POPULATION BIOLOGIST. The Department of Ecology and Evolution at the University of Chicago seeks to hire a plant population biologist with a strong interest in plant ecology, for a faculty position at any level. To apply please send curriculum vitae, reprints, a statement of research interests, and three letters of recommendation by 31 October 1990 to: Chair, Plant Population Biology Search Committee, The University of Chicago, Department of Ecology and Evolution, 915 East 57th Street, Chicago, IL 60637. Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL POSITIONS

Several postdoctoral positions are available within the College of Veterinary Medicine and Biomedical Sciences, Colorado State University, in cross-institutional, cross-departmental and cross-faculty programs. One of these programs (funded by NIAID) addresses the molecular biology of Mycobacterium avium and the genetic and biochemical basis of its infectivity and resistance to drugs in the context of AIDS. This program involves Drs. P. J. Brennan, J. Inamine, M. McNeil and I. Orme (Department of Microbiology) and investigators at Case Western Reserve, Cleveland (Dr. J. J. Ellner), and Albert Einstein College of Medicine, New York (Dr. W. R. Jacobs). Another program (funded by the Edna McConnell Clark Foundation) addresses the antigenicity and molecular pathogenesis of a variety of filarial agents (Onchocerca, Diofilaria) and involves Dr. R. B. Grieve (Department of Pathology). The combined programs address new frontiers in the application of fundamental chemical and genetic approaches to problems associated with a typical mycobacteria and filariae and should provide a multifaceted training forum for new Ph.D.'s with interests and backgrounds in these areas. Please address applications to: Dr. Patrick J. Brennan, Department of Microbiology, Colorado State University, Fort Collins, CO 80523.

Colorado State University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION IN VASCULAR BIOLOGY. A position is available immediately to study the basic molecular and cell biology of protease receptors, with emphasis on receptors for fibrinolytic proteases. A strong background in either protein chemistry, cell biology, or molecular biology is required. Send curriculum vitae and names of three references to: Dr. Lindsey A. Miles, Committee on Vascular Biology (CVB-1), Research Institute of Scripps Clinic, 10666 North Torrey Pines Road, La Jolla, CA 92037.

Two POSTDOCTORAL POSITIONS IN INTERMEDIARY METABOLISM are open in the Department of Nutrition of Case Western Reserve University. Projects involve (i) regulation of ketone body metabolism [AJP 258, E519 (1990)], (ii) development of noninvasive procedures for probing tissue metabolism in humans, and (iii) designing, synthesizing, and testing new compounds for intravenous nutrition. Candidates must be proficient in enzymatic and GCMS assays, use of stable isotopes for metabolic studies, and, if possible, organic synthesis. Submit curriculum vitae and three letters of reference to: Dr. Henri Brunengraber, Chairman, Department of Nutrition, Case Western Reserve University, Cleveland, OH 44106. Case Western Reserve University is an Equal Opportunity Employer. Women and members of minority groups are encouraged to apply.

# NIVERSITY Biotochnology B

### BiotechnologyProgram

Cornell University invites applications for the position of Director of the Biotechnology Program. The Program, established in 1983, is funded by industry, state, federal and Cornell sources. The directorship is a half-time administrative appointment. Additionally, the Director must be qualified to be appointed to a tenure-track position in a department consistent with his/her expertise. The Director should be internationally recognized in an area related to biotechnology. Experience in agricultural science is desirable, and demonstrated administrative, management and leadership skills are essential. Continuation of an active research and teaching program

The Director is the major spokesperson for biotechnology at Cornell, with liaisons to faculty, external agencies, alumni and the public, overseeing a program with a current annual operating budget of \$4.5 million. In collaboration with the Program's Scientific Administrative Board, the Director determines program goals and focus, funds research grants on specific projects, is responsible for raising and maintaining funds for the Program and interacts closely with its current sponsors.

A competitive salary with fringe benefits is offered. Applications, nominations and requests for further information will be held confidential and should be directed to: Dr. Norman R. Scott, Vice President for Research and Advanced Studies, Cornell University, 314 Day Hall, Ithaca, NY 14853. Telephone (607) 255-7200. Applications will be evaluated starting November 1, 1990. The position will be available July 1, 1991.



Cornell University is an equal opportunity/ affirmative action employer.



Neurogenetic Corporation is a rapidly growing biotechnology company involved in the discovery and cloning of neurotransmitter receptors and other sites of drug action. By pioneering advances in the basic neurosciences we are creating a pathway to the next generation of neuro-psychiatric treatments. Current expansion of our Cell Biology program has created opportunities for Ph.D scientists with postdoctoral experience and the following qualifications:

### **CELL BIOLOGY GROUP LEADER:**

This key position requires experience in directing a mammalian cell biology program. The ideal candidate would have experience in the design and implementation of cell culture quality control procedures, and familiarity with second messenger systems, mass cell culture techniques, expression vectors, and transfection technologies.

### **BIOCHEMICAL SPECTROSCOPY:**

We have an opportunity for a scientist familiar with second messenger assays and biophysical spectroscopies who will develop new approaches to the study of receptor action in living cells.

Neurogenetic Corporation occupies well-equipped, modern laboratories in a suburban environment near New York City. We offer a stimulating multidisciplinary research environment, competitive salaries and benefits, and opportunities for stock ownership. Applications, which will be kept confidential, should include a Curriculum Vitae and names of three references. Apply to:

**Human Resources Department** Neurogenetic Corporation 215 College Road, Paramus, New Jersey 07652

### **Group Leader Plant Biotechnology**

Join American Cyanamid's Agricultural Research Division where you'll be part of a winning team committed to discovering ways to increase worldwide crop production through chemical, biochemical and biological research.

A position is available for a **Group Leader of Plant Molecular Biology** at our new facility in Princeton, New Jersey. The successful candidate will conduct independent research and supervise a team of scientists in the area of cloning and heterologous expression of plant genes.

Applicants should hold a Ph.D. degree and have at least five years of post-doctoral experience in plant molecular biology; industrial and managerial experience are preferred.

We offer an excellent compensation package and a convenient location midway between New York City and Philadelphia. Please forward your resume with salary requirements to: Employment Office, American Cyanamid Company, Agricultural Research Division, P.O. Box 400, Princeton, NJ 08543-0400. An Equal Opportunity Employer M/F/H/V.



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### **Senior Project Manager** (Environment Division)

You will initiate and manage technical, financial and administrative aspects of research contracts to ensure delivery of quality R&D products in a timely manner, develop concepts and ideas, prioritize industry needs, and implement research projects. In addition, you will participate in technology transfer efforts and interact with utilities, government agencies, universities, and other R&D organizations, and participate in internal planning and prioritization

The selected candidate will possess a Ph.D. or equivalent in Earth Sciences (e.g., Geology, Environmental Science, Hydrology, Microbiology, Organic Chemistry, Water Resources) or equivalent, and 5+ years project management experience to include scientific work contracts. Knowledge of electric utilities and their waste management/water quality protection, and field and laboratory experimental techniques know-how is highly desirable.

EPRI offers an extremely competitive salary and an excellent benefits package. Please submit your resume with salary requirements to: D. Staten, EPRI, Human Resources Department SCI890, 3412 Hillview Avenue, P.O. Box 10412, Palo Alto, CA 94303. An Equal Opportunity Employer.



POSTDOCTORAL POSITION. Available in biochemistry and immunology to study effects of toxic chemicals on immune cells: emphasizing T cell function and also the interactions and organization of proteins in the nuclear matrix. Position funded for 3 years. Send curriculum vitae and three references to: Dr. C. R. Verret, Department of Chemistry, Tulane University, New Orleans, LA 70118.

POSTDOCTORAL POSITION. Available immediately to study vector competence of mosquitoes for St. Louis encephalitis virus. Ph.D. in entomology, microbiology, or related biological science required. Experience in experimental manipulation of insects and/or virological methods desirable. Send curriculum vitae and names and addresses of three references to: Dr. Donald A. Shroyer, Florida Medical Entomology Laboratory, University of Florida, 200 9th Street, S.E., Vero Beach, FL 32962. Telephone: 407-778-7200.

### POSTDOCTORAL POSITION

Available starting 1 November 1990, to study active site and mechanism of prokaryotic RNA polymerases. Deadline for the receipt of applications is 1 October 1990. Applicants should have experience in molecular biology and biochemistry. Send curriculum vitae and three references to: Dr. A-Young Moon Woody, Department of Biochemistry, Colorado State University (CSU), Fort Collins, CO 80523. CSU is an Affirmative Action/Equal Opportunity Employer. Equal Opportunity Office: 314 Student Services Building.

POSTDOCTORAL POSITION. Ph.D. (physioloanimal science, nutrition, or related area) for work in NIH-funded study of the effects of parenteral nutrition on intestinal growth and development in neonatal swine. Experience in intestinal function (e.g., transport, mor phology, enzyme analysis, etc.) and experience handling experimental animals is preferred. Send curriculum vitae and three letters of recommendation to: Mark G. Clemens, Ph.D., Pediatric Surgical Laboratory, Johns Hopkins University, School of Medicine, Department of Surgery, CMSC 7-116, 600 North Wolfe Street, Baltimore, MD 21205.

POSTDOCTORAL POSITIONS. In protein crystallography at Rockefeller University. Projects available include structure determinations of flavoprotein disulfide reductases, transcription factors involved in oxidative stress response, and oncogene products. Candidates must demonstrate significant experience in protein expression and purification or in macromolecular crystallography. Send résumé to: Dr. John Kuriyan, Laboratory of Molecular Biophysics, The Rockefeller University, 1230 York Avenue, New York, NY 10021. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Available immediately to study microcirculatory characteristics of human abnormal and sickle blood by intravital techniques (video-microscopy, hemodynamic measurements, dual-slit cross-correlation, video-image splitting, fluorescence mi-croscopy). Emphasis will be given to blood cell-endo-thelium interaction, endothelial reactivity, and perfusion conditions. Reply with names of three references to: Dr. D. K. Kaul, Associate Professor of Medicine, Room U-917, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, NY 10461, or telephone: 212-430-3702.

A POSTDOCTORAL POSITION IN EVOLU-TIONARY ECOLOGY is available to study the interactions of host plants with herbivorous, gall-making insects. Areas of interest include population genetics of host and host-associated herbivore populations, gall maker taxonomy and host-association ecology, the basis of host-plant resistance via plant necrosis and early larval death, development of bioassays to test the effects of host-plant secondary chemicals on insect oviposition behavior and larval performance, and herbivory and competition in goldenrod population dynamics. Position begins January or February 1991.

Send curriculum vitae and names of three recommenders to: Dr. Warren Abrahamson, Department of Biology, Bucknell University, Lewisburg, PA 17837. Telephone: 717-524-1155.

Applications from women and members of minority groups are encouraged.

### **POSITIONS OPEN**

POSTDOCTORAL POSITIONS. Available immediately to study cell-extracellular matrix interactions at the University of California, San Francisco (UCSF). Projects include the structural and functional character ization of a novel metalloproteinase inhibitor, study of mechanism(s) involved in the promotion of oncogenic mechanism(s) involved in the prohotion of officigenic transformation by this protein, and the identification and characterization of related members of this family of proteins. Background in cell and molecular biology, biochemistry, or immunology desirable. Please send curriculum vitae and three letters of recommendation to: Dr. Susan P. Hawkes, Department of Pharmacy, UCSF, San Francisco, CA 94143–0446. UCSF is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH TRAINING FELLOWSHIPS. Available immediately in the areas of: (i) the neuro-virology and -immunology, -endo-crinology, -pathology, -psychiatry, and -psychology of HIV and AIDS; (ii) the epidemiology of CNS HIV infection and AIDS; (iii) the role of psychosocial and emotional co-factors in the natural history of HIV infection; (iv) the passage of anti-viral drugs through the blood-brain barrier. Eligibility: U.S. citizens or permanent residents; M.D., D.O., and completion of accreditation residency; Ph.D. or equivalent. NIMH stipend plus supplement. Send curriculum vitae, three letters of reference, and research proposal in area of interest to: Dr. Herbert Weiner, C8-861, Neuropsychiatric Institute, University of California, Los Angeles (UCLA), 760 Westwood Plaza, Los Angeles, CA 90024–1759. UCLA is an Equal Opportunity/Affirmative Action Employer.

### RECOVERY OF FUNCTION AFTER SPINAL INJURY NEUROBIOLOGY POSTDOCTORAL FELLOWSHIP

Program focusing upon mechanisms underlying recovery of function after spinal cord injury. Interdisciplinary training in methods of analyzing motor behavior and recovery of function and in immunocytochemical methods applied to adult cat spinal cord. The goal of the research is to enhance recovery by reducing spinal shock and to determine which spinal neurons are important in this process by using activity-dependent markers. Send curriculum vitae and names of references to:

Dr. Michael E. Goldberger Department of Anatomy and Neurobiology
Medical College of Pennsylvania (MCP)
3200 Henry Avenue
Philadelphia, PA 19129

MCP is an Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL FELLOW IN APPLIED ENZYMOLOGY AND PROTEIN ENGINEERING

Applications are invited for a postdoctoral research position, available immediately, to investigate the use of enzymes in supercritical fluids. In addition, enzymes will be redesigned using site-directed mutagenesis for use in nonaqueous environments. The successful applicant will join an ongoing research project and will be experienced in protein chemistry and preferably familiar with the use of enzymes in nonaqueous solvents or recombinant DNA technology. Salary will be at least \$24,000 per year, depending on qualifications. Candidates who have (or expect to receive) a Ph.D. should submit curriculum vitae and the names of three references to: Dr. Alan J. Russell, 1235 Benedum Hall, Center for Biotechnology/Chemical Engineering Department, University of Pittsburgh, Pittsburgh, PA 15261. Applications will be accepted until the position is filled. The University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer.

#### BONUS CIRCULATION FOR YOUR CLASSIFIED AD

Our issue of 5 October 1990 will be distributed to scientists attending two important meetings: IBEX (San Mateo, California, 23 to 25 October) and Expoquimia (Barcelona, Spain, 5 to 8 November). Deadline or submission of line classified ads: 20 September 1990.

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

### **POSITIONS OPEN**

#### HARVARD MEDICAL SCHOOL POSTDOCTORAL POSITION

Position available immediately to study the role of cyclic GMP in signal transduction and cellular function. Research involves role of cGMP in platelet and smooth muscle cell signaling pathways, and isolation and characterization of unique substrates for cGMP-dependent protein kinase. Ph.D. in molecular biology with additional expertise in protein biochemistry preferred. Ability to work independently necessary. Send curriculum vitae and names/telephone numbers of three references to: Dr. Michael E. Mendelsohn, Department of Medicine, 75 Francis Street, Boston, MA 02115.

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POSTDOCTORAL POSITIONS. The Department of Molecular and Cellular Biology is an interactive, young, and growing department housed in a new building with outstanding facilities. Postdoctoral positions are available in the following laboratories: **Dr. Danny Brower**, pattern formation and morphogenesis in *Droso*phila; Dr. Alison Adams, cellular morphogenesis and the actin cytoskeleton of yeast; Dr. Roy Parker, regulation of mRNA stability in yeast; Dr. Samuel Ward, genetic control of cellular morphogenesis in the nematode C. elegans; Dr. Karen Oishi, expression of ABA biosynthetic genes during maize embryogenesis. Please send curriculum vitae and arrange to have three letters of recommendation sent directly to the laboratory of your interest: Department of Molecular and Cellular Biology, Life Sciences South Building, Room 444, University of Arizona, Tucson, AZ 85721. Application deadline is 15 October 1990 or until positions are filled. The University of Arizona is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged

POSTDOCTORAL FELLOW. Recent Ph.D. in molecular biology to study enzymes regulating the hydrolysis of cholesteryl esters (see PNAS 86, 6913). Position supported by NIH training grant in atherosclerosis. Must be permanent resident or U.S. citizen. Send curriculum vitae and names of three references to: Dr. Edward A. Fisher or Dr. Earl H. Harrison, Department of Physiology and Biochemistry, Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, PA 19129.

POSTDOCTORAL FELLOWSHIPS. For M.D.'s and Ph.D.'s (beginning 1 July 1991). Obesity Research Center, St. Luke's/Roosevelt Hospital Center, Columbia University and Rockefeller University.

Postdoctoral positions, for 2 or 3 years, funded by an NIH Institutional Training Grant, available within a multidisciplinary program in nutrition dealing primarily with obesity and eating disorders. Faculty trainers are: Streamson C. Chua, M.D.; Neile Edens, Ph.D.; Steven Heymsfield, M.D.; Jules Hirsch, M.D.; Harry Kissileff, D. D. P. Budalah L. Leibel M.D. Grand Marcia Ph.D. Ph.D.; Rudolph L. Leibel, M.D.; Carol Maggio, Ph.D.; Dwight Matthews, Ph.D.; Richard Pierson, M.D.; F. Xavier Pi-Sunyer, M.D.; Theodore B. Van Itallie, M.D.; and Mei Yang, Ph.D.

Research interests of faculty trainers are: molecular physiology of neuropeptides relevant to energy homeo-stasis in rodents; molecular genetics and biology of obesity; catecholamine receptor biochemistry; fat cell metabolism; free-fatty acid reesterification cycle activity, energy homeostasis in men and animals; compartmenta-tion of movement of lipids within cells; stable isotope methodology; hormonal regulation of energy and protein metabolism; methods of nutritional assessment; methods of body composition assessment; contribution of obesity to diabetes mellitus; insulin resistance; determinants of thermogenesis; nutritional support; patho-physiology of body fat distribution; determinants of protein loss during dieting; hormonal regulation of catabolism; caloric requirement of obese, formerly obese, and nonobese; autonomic function of heart rate fluctuation as an index of sympathetic and parasympathetic tone; adipose tissue composition and metabolism; human food intake regulation; physiological psychology of appetite and satiety in bulimia and obesity; animal modof obesity; adipose tissue and appetite; and gastroin-

testinal factors in satiety.

Send letter of reference and curriculum vitae to: **F.** Xavier Pi-Sunyer, M.D., Program Director, Nutrition Research Training Program, c/o Josephine Simpson, Human Resources, St. Luke's/Roosevelt Hospital Center, 114th Street and Amsterdam Avenue, New York, NY 10025. Telephone: 212-523-4161. An Equal Opportunity Employer.

### ASSISTANT/ASSOCIATE MEDICAL DIRECTOR, EUROPE

This is the opportunity to lead the program which will define the clinical utility of monoclonal antibodies in the diagnosis and monitoring of human disease. Based in Europe (Belgium) but able to draw on the resources of one of America's largest biomedical companies, you will develop/supervise a clinical investigation program involving many of Europe's greatest centers of clinical investigation.

The successful candidate should be board certified/eligible, or with equivalent training, either in internal medicine (with relevant subspecialty) or in laboratory medicine. Clinical expertise with monoclonal antibodies, molecular biology, and flow or image cytometry is desirable.

Experience in the design and supervision of clinical trials, and  $1^{1/2}$  years minimum experience in laboratory research are required.

Excellent relocation assistance. High advancement potential.

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Embryology Postdoc/Scientist

A position is currently available for an embryologist in the Development Biology Group headed by Dr. Gordon Wong. This group is dedicated to the identification and isolation of protein regulatory factors and cellular mechanisms affecting determination and differentiation in early development. The ideal candidate would have direct experience in manipulating and culturing early mouse, chicken or amphibian embryos in vitro, cell lineage mapping, or in the in vitro culture of embryonic stem cells, embryonal carcinoma cells and their biology.

This position allows the opportunity to apply biotechnology to classical development biology problems, within a company setting offering state-of-the-art laboratories, extensive resources facilities and supporting professional affiliation, participation and travel.

Please send resumes to Sheri Rist, 87 CambridgePark Drive, Cambridge, MA 02140. An equal opportunity employer

# **Genetics Institute**



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The Massachusetts Medical Society is seeking candidates for the position of Editor-in-Chief of the New England Journal of Medicine. The Journal was established over 178 years ago and today is regarded as one of the world's premier medical publications.

A candidate for this position must be an M.D. with clinical experience and demonstrated writing and editorial expertise. Proven leadership, managerial and administrative skills, and the ability to speak effectively in the public forum are essential. Recognized achievement in academics, medicine and research is highly desirable.

Please submit curriculum vitae, in confidence, to:

The Search Committee Editor-in-Chief Massachusetts Medical Society 1440 Main Street Waltham MA 02154

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### FACULTY POSITIONS UNIVERSITY OF GEORGIA DEPARTMENT OF MICROBIOLOGY

The Department of Microbiology, at the University of Georgia. invites applications for three, tenure track faculty positions in the areas of microbial physiology, cellular/molecular aspects of microbial pathogenesis, or immunology. Two positions will be filled at the rank of Assistant Professor, with the third at a senior rank appropriate to experience. Qualifications for the Assistant Professor positions include a doctoral degree and a minimum of two years of postdoctoral experience, a strong record of research productivity, and a commitment to excellence in classroom instruction. A candidate for the senior level position should be an established scientist who has demonstrated intellectual creativity, a commitment to excellence in teaching and a strong record of research productivity and support. Women and minorities are encouraged to apply for all positions, and nominations for the senior position are welcomed. Responsibilities will include the development/ maintenance of an independent, externally funded program of research and graduate training, as well as teaching in undergraduate and graduate level courses within the Department Applicants for all positions should submit a statement of research and teaching interests and a curriculum vitae. Applicants for the Assistant Professor position should arrange to have three letters of reference sent prior to the closing deadline. Applicants for the senior position should submit a list of five potential references. All applications must be received by October 1, 1990. The target date for filing these positions is September 1, 1991. Salary will be commensurate with qualifications and experience. Submit applications to: Search Committee, Department of Microbiology, The University of Georgia, Athens GA 30602

The University of Georgia is an Equal Opportunity



Deutsches Krebsforschungszentrum Stiftung des öffentlichen Rechts

The Deutsche Krebsforschungszentrum (German Cancer Research Center) offers a position as Head of a new Group for

### Molecular Pharmacology

We wish to appoint a qualified scientist with excellent records in molecular pharmacology related to oncology. The applicant should have qualifications comparable to a German "Habilitation" (Assistant Professorship).

The position is initially limited to a 5 years period with a salary in the range of approximately DM 80 000 per annum. It offers applicants the opportunity for research in a well equipped laboratory. Positions for two postdocs and two technicians will be available.

Applicants should submit their curriculum vitae together with a list of publications and references by October 15, 1990 to Prof. H. zur Hausen, Wissenschaftlicher Stiftungsvorstand des Deutschen Krebsforschungszentrums, Im Neuenheimer Feld 280, D 6900 Heidelberg, Germany.

### 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, transmit-
- ters, and growth factors.
- Dr. Christine Gall: Limbic/olfactory anatomy, neuro-
- trophic factors, neuronal gene expression.

   Dr. Roland Giolli: Visuomotor system: structure/
- function relationships
- Dr. Stewart Hendry: Primate visual system.
   Dr. Paul Isackson: Molecular neurobiology, neuro-
- trophic factors • Dr. Edward Jones: Transmitter regulation in primate
- cerebral cortex.

   Dr. Glenn Kageyama: Oxidative metabolic develop-
- 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 develop-
- ment.

   Dr. Malcolm Semple: Auditory processing.

   Dr. Martin Smith: Cellular and molecular aspects of
- synaptogenesis.
- Dr. John Swett: Spinal cord and peripheral nervous
- 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, CÁ 92717

An Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL FELLOW POSITION

A position is available immediately in a strong vision research center for research on Vitamin A in the visual process and in retinal development in normal and diseased conditions. Refer to *J. Biol. Chem.* **265**, 8373–8376 (25 May 1990) for research background. Applicants must have experience in molecular biology and/or cants must have experience in molecular biology and/or biochemistry. Send curriculum vitae and three letters of reference to: Dr. Gregory I. Liou, Department of Ophthalmology, Medical College of Georgia, Augusta, GA 30912–3400.

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

### POSTDOCTORAL FELLOWSHIPS THE GOLDA MEIR FELLOWSHIP FUND THE HEBREW UNIVERSITY OF JERUSALEM JERUSALEM, ISRAEL

The Hebrew University of Jerusalem invites applicants for postdoctoral fellowships in humanities, social sciences, natural and applied sciences, agriculture, and medicine for the 1991–92 academic year. Candidates may apply at an early stage of their professional career (not later than 3 years after completion of their doctoral dissertation). The fellowships are tenable for one academic year and may be extended for another year. The fellowship provides a 12-month stipend (with cost of living adjustments), rent allowance, and a return ticket to Israel. Application forms can be obtained from: Office of University Funds, P.O. Box 1255, Jerusalem, 91904, Israel. Completed application forms must be returned by 1 December 1990.

### **POSITIONS OPEN**

FELLOWSHIPS. Stanford University's Center for International Security and Arms Control announces 1year fellowships designed to provide mid-career scientists an opportunity for study in problems related to internaan opportunity for study in proteins related to literia tional security, defense policy and planning, and arms control starting fall 1991. Application deadline is 15 February 1991. For information, contact: **David Bern**stein, 320 Galvez Street, Stanford, CA 94305-6165.

### POSTDOCTORAL TRAINEESHIP MOLECULAR GENETICS

Position available immediately to participate in molecular analysis of meiotic pairing sites in *Drosophila melano-*gaster [see B. D. McKee, and G. H. Karpen, *Cell* **61**, 61 (6 April 1990)] or study of chromosomal control of gene expression in *Drosophila* spermatogenesis. Funded for up to 3 years; starting salary approximately \$24,000. Consideration of applications to begin 21 September 1990. Submit curriculum vitae, brief statement of research interests, and names of three references to: Dr. Bruce D. McKee, Department of Zoology, University of Tennessee (UTK), Knoxville, TN 37996-0810. UTK is an Equal Opportunity/Affirmative Action/Title IX/Section 504 Émployer

### UNIVERSITY OF CALIFORNIA SAN FRANCISCO POSTDOCTORAL FELLOWSHIPS

Fellowships are available for research on the molecular, cellular, genetic, and developmental aspects of mamma-lian cells in a program to study basic mechanisms of environmental mutagenesis and carcinogenesis. The fac-ulty include: **Michael J. Banda** (wound repair, proteinulty include: Michael J. Banda (wound repair, protein-ases, and proteinase inhibitors), James E. Cleaver (DNA repair genes), William F. Morgan (chromosome dam-age and repair, SCEs), John P. Murnane (DNA recom-bination), Robert B. Painter (DNA replication and repair), Roger A. Pedersen (early mammalian develop-ment, cell lineage, transgenic mice, and homologous recombination), Zena Werb (extracellular matrix re-modeling, growth factors, development, tissue repair, homologous recombination), and Sheldon Wolff (radi-ation genetics, cytogenetics) ation genetics, cytogenetics).

Stipends are funded through a National Research Service training program and NIH grants. Appointments can begin immediately. The requirements are a Ph.D. can begin immediately. The requirements are a Ph.D. degree or equivalent, preferably in cell, developmental, or molecular biology; biochemistry; or environmental toxicology, and U.S. citizenship or permanent residency for training program traineeships. Send résumé, graduate transcript, statement of research interests, and three letters of recommendation by 1 November 1990 to: Dr. Zena Werb, Program Director, Laboratory of Radio-biology and Environmental Health, University of California, San Francisco, CA 94143–0750. An Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL RESEARCH ASSOCIATE

Available immediately for program on expression of respiratory chain genes in mammalian tissues and molecular basis of respiratory chain defects in human diseases. Strong background in molecular biology essential. Send résumé and letters of recommendation to: **Dr. N. Ken**naway, Department of Medical Genetics, L473, Oregon Health Sciences University, Portland, OR 97201, or to: Dr. R. Capaldi, Institute of Molecular Biology, University of Oregon, Eugene, OR 97403.

### POSTDOCTORAL RESEARCH ASSOCIATE

Available 1 October 1990 to study evolution of the human genome. Requires strong background in molecular biology, including experience with genomic and cDNA library construction, cloning, and DNA sequencing. Send curriculum vitae, cover letter including a brief description of recent research activities and summary of training, and names, addresses, and telephone numbers of three references to: Dr. Maryellen Ruvolo, Harvard University, Department of Anthropology, 11 Divinity Avenue, Cambridge, MA 02138.

Mote Marine Laboratory, an independent, nonprofit RESEARCH institution, is accepting applications for the following disciplines: fisheries science, marine mammal ecology, marine toxicology, and physical oceanography. Applicants must have a Ph.D. with experience in extramural funding and publications. Send résumé and list of references to: Dr. Richard H. Pierce, Director of Research, Mote Marine Laboratory, 1600 Thompson Parkway, Sarasota, FL 34236 by 15 October 1990.

### **POSITIONS OPEN**

#### DISCOVER THE NEW ARABIA

The King Faisal Specialist Hospital and Research Centre in Riyadh, Saudi Arabia, has the following positions available:

- RESEARCH FELLOW. Applicants should have a Ph.D. and a minimum of 3 years of relevant experience in molecular biology and/or pharmacogenetics. Must be capable of handling various biochemical methods. Research would include application of molecular biology in medicine.
- RESEARCH FELLOW. Applicants should have a Ph.D. and a minimum of 3 years of relevant experience in molecular biology and/or molecular genetics. Must be capable of handling various biochemical methods. Research would include application of molecular biology in
- SENIOR RESEARCH TECHNICIAN. Must be capable of handling various biochemical methods. Experience in molecular biology and/or pharmacogenetics is desirable. Minimum of 7 years of research experience with B.S. degree in appropriate science required. (Some reduction of experience possible with M.S.)

Benefits include potentially tax-free salary, liberal vacation and holidays, furnished housing, and air transportation. To apply, send résumé to:

Hospital Corporation International 2515 Park Plaza Nashville, TN 37203

Equal Opportunity Employer.

### POSTDOCTORAL CLINICAL RESEARCH FELLOWSHIPS

Harvard Medical School, Department of Psychiatry, Massachusetts Mental Health Center (MMHC): 2-year postdoctoral research fellowships involving independent research under experienced clinical researchers, participaresearch under experienced clinical researchers, participation in integrative seminars, and formal courses at Harvard. Faculty preceptors and areas include: Dr. Joseph Schildkraut (neuropsychopharmacology), Dr. Larry Seidman (neuropsychology), Dr. Carl Salzman (psychopharmacology), Dr. Alan Schatzberg (psychoendocrinology), Dr. J. Allan Hobson (sleep research), Dr. Robert McCarley (schizophrenia research-ERPs/MRI), Dr. Alan Green (psychoneuroendocrinology), Dr. Robert Selman (social cognition), Dr. Stuart Hauser (adolescent and young adult development), and Dr. Elliot Mishler (social psychiatry). Open to psychiatrists (including residents), other physicians, and Ph.D.'s in biological/social sciences who are U.S. citizens or hold U.S. resident card. Stipends: \$17,000 to \$31,500. Application resident card. Stipends: \$17,000 to \$31,500. Application deadline: 15 January 1991. Please contact: **Karen Benes**, Program Administrator, Clinical Research Training Program, MMHC, 74 Fenwood Road, Boston, MA 02115. Telephone: 617-734-0031.

### RESEARCH FELLOW

A research fellow position starting August 1990 is available for 1 to 2 years in the field of vascular physiology and applied laser technology. Supervised independent laboratory research available for M.D. or Ph.D. level experience. Salary range: \$27,934 to \$41,912. Application must be received no later than 31 October 1990. Please forward résumé, cover letter, and references to: Associate Director, Human Resources, Carolinas Medical Center, P.O. Box 32861, Charlotte, NC 28232. Equal Opportunity Employer, M/F.

### RESEARCH ASSOCIATE POSTDOCTORAL FELLOW MOLECULAR GENETICS

Position available in a newly reorganized Division of Genetics to study the organization and evolution of the human Y chromosome and the molecular basis of the red/green visual pigment genes in individuals with normal color vision and color vision deficiency. Candidates should have doctoral degree with training in molecular biology, genetics, or related field. Level of appointment will be commensurate with experience. Application should be by letter describing accomplishments and research interests and goals, and should include curriculum vitae and names of three references. These should be addressed to: Dr. Harry Ostrer, Director, Division of Genetics, Department of Pediatrics, New York University Medical Center, 550 First Avenue, New York, NY 10016.



# Plant Biologist

The Department of Biology at Yale University wishes to appoint ladder faculty at either the junior or senior level with broad interests and experience with plants. We seek applicants who are using a variety of approaches to study fundamental problems in plant development, cell and molecular biology, and physiology, and who can contribute to undergraduate and graduate teaching.

Please send curriculum vitae, description of research interests and the names and addresses of at least three referees by January 1, 1991 to: Plant Biologist Search Committee, c/o Chairman, Department of Biology, Yale University, P.O. Box 6666, New Hayen, CT 06511-8112.

Yale University is an Equal Opportunity/
Affirmative Action Employer

Women and members of minority groups are especially urged to apply.



### THE INTERNATIONAL RICE RESEARCH INSTITUTE

**PLANT PHYSIOLOGIST** 

The International Rice Research Institute, is an international, donor funded non-profit, agricultural research institute that undertakes research and training at its headquarters in the Philippines and collaborates with national agricultural systems worldwide. Its goal is to enhance rice production and sustainability to benefit the world's 1.3 billion people who are dependent on rice for their livelihood and as their basic food. IRRI seeks a Plant Physiologist who will work with interdisciplinary teams of scientists such as plant breeders, geneticists and soil scientists.

### Responsibilties:

- Provide disciplinary leadership and implement research projects on nutrient dynamics, methods for evaluating useful physiological traits, and crop canopy photosynthesis in different ecosystems, plant types and methods of crop establishments as they relate to increased grain yield potentials of rice in different ecosystems.
- Contribute to IRRI's program of degree and non-degree training. This includes serving as adviser to MS and Ph.D. students.
- Work with national agricultural systems in conducting practical and strategic research to solve regional or local problems.

### Qualifications:

- Ph.D. in plant or crop physiology.
- Experience in tropical agriculture highly desirable.
- Expert knowledge in plant nutrition and photosynthesis is important.
- Excellent ability to speak and write English is required. Published or accepted papers in international journals are desirable.
- International travel is required.

### Benefits

Salary and perquisites will be commensurate with those of similar international institutions and programs in agriculture. The person chosen for the position will live at IRRI headquarters on the campus of the University of the Philippines at Los Banos, 60 km south of Manila.

### Application.

Applications with full documentation, including three referees, and names of nominees should be addressed to:

Dr. Klaus Lampe, Director General IRRI, PO Box 933, 1099 Manila, Philippines TEL. NO. (63-2) 818-1926. FAX: 63-2-817-8470. TELEX: 40890 RICE PM or 22456 IRI PH

Interviews of short-listed applicants will commence in September 1990.

# RESEARCH and DEVELOPMENT OPPORTUNITIES

Technicon Instruments Corporation is in its fifth decade as a pioneer in the field of automated analytical instrumentation. Today our systems are in hospitals and laboratories throughout the world. Joining us means challenging participation in the development of new technology.

# PRODUCT DEVELOPMENT SCIENTISTS

We are rapidly expanding our successful line of diagnostic products. We are looking for highly motivated professionals (BS, MS, PhD's) to take charge of the development of novel automated clinical assays for immunology, hematology, and chemistry. The ideal candidates will have experience in one or more of the following...biochemistry, immunochemistry, enzymology and cell biology. Industrial experience in diagnostic product development is an important prerequisite.

These career opportunities, based in our Science Center in suburban New York, offer a work environment conducive to professional growth, as well as competitive salaries and a comprehensive benefits program. For consideration, please send resume in confidence to: MANAGER, HUMAN RESOURCES—R&D

### **TECHNICON INSTRUMENTS CORPORATION**

511 Benedict Avenue, Tarrytown, NY 10591

An Equal Opportunity Employer M/F/H/V



TECHNICON T.M.

### RESEARCH ASSOCIATE BIOCHEMISTRY

Amgen has emerged as a recognized leader in the application of recombinant DNA and other biotechnologies to the problems of human health care. As a result of our continuing growth, we have an immediate opportunity for a Research Associate to contribute to on-going research efforts in the formulation and characterization of therapeutic proteins.

Qualified applicants for this position must have a BS or MS in Biochemistry or a related discipline and 1-5 years' experience depending upon education. Candidates should have extensive experience in purification and characterization of proteins including SDS-PAGE, IEF, Western Blotting, RP-HPLC, SEC and other related techniques. Familiarity with CD and other spectrophotometric methods is desirable but not essential, as is experience in formuation and stabilization of proteins.

Amgen offers a stimulating and challenging environment on the leading edge of biotechnology as well as an excellent compensation and benefits package. Our location, about an hour northwest of Los Angeles, offers all the advantages of Southern California living but is pleasantly free of traffic congestion and other problems associated with Los Angeles. If you have the necessary skills and would like to be a part of an organization that places a high priority on its human resources, please send a resume, in confidence, to:

AMGEN, INC. Recruitment, Dept. #555 Amgen Center Thousand Oaks CA 91320-1789

Equal Opportunity Employer



# RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY

The Department of Biotechnology Research at Pioneer Hi-Bred International, Inc. is seeking applicants for our ongoing program of crop improvement. Pioneer offers competitive salaries, excellent facilities, and a highly cooperative research environment. Successful candidates will be expected to interact extensively with ongoing programs in transformation, gene expression, gene isolation or RFLP programs.

APPLIED MOLECULAR BIOLOGY - RFLPs — This position will complement an existing RFLP group that is profiling maize inbreds and hybrids using current probes and technology. The successful candidate will investigate the application of new and developing technologies to provide for the precise and rapid DNA profiling or fingerprinting of individual varieties of maize and other crop species. Requirements include a four-year university degree in molecular biology or related fields plus five years of directly related experience or a M.S. degree in molecular biology plus two years of related experience.

PROTEIN ASSAY LAB COORDINATOR — The successful candidate will organize and execute experiments using both antibody-based and enzyme assays as required to meet the department's objectives. These duties will require both developing and adapting assays for specific proteins and/or plant species. Coordination and collaboration with other laboratories or departments in the Plant Breeding Division is essential. A M.S. degree in appropriate science area or equivalent, directly related laboratory experience in protein assays is required. Three years of directly related laboratory experience with a M.S. degree or five years experience with a four-year University degree are required.

Pioneer Hi-Bred International is an Equal Opportunity/ Affirmative Action Employer. Send resume including the names of at least three references, and the position for which you are applying to:



PIONEER HI-BRED INTERNATIONAL, INC.

7300 N.W. 62nd Avenue • P.O. Box 38 • Johnston, IA 50131 Attn: Jo Ann Jorgensen

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### RESEARCH SCIENTIST DRUG DELIVERY

Amgen has established itself as a leader in the discovery and development of human pharmaceuticals through the application of molecular biology and biotechnology. The unique nature of the products has created challenging research opportunities in the development of appropriate delivery systems. As a result we are seeking an accomplished and creative scientist to help establish a group in the field of non-invasive delivery of proteins.

Qualified applicants must have a Ph.D. in a relevant discipline and a minimum of 5 years' experience in the development of drug delivery systems via one or more of the following routes of drug administration: oral, dermal, nasal or pulmonary. Experience with proteins is desirable but not essential.

Amgen's commitment to excellence in research has created a stimulating and challenging environment conducive to innovation and creativity. As a company we highly value our human resources and offer an excellent compensation and benefits package including equity offerings. Our location is northwest of Los Angeles in an attractive community free of traffic congestion and other problems commonly associated with the Los Angeles area.

If you have the required background and would like to contribute your expertise to our research efforts, please send a CV, in strictest confidence, to:

AMGEN, INC. Recruitment, Dept. #552 Amgen Center Thousand Oaks CA 91320-1789

Equal Opportunity Employer



### 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 sudy 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.

### COMPUTATIONAL CHEMIST/ COMPUTER SCIENTIST/ MOLECULAR BIOLOGIST

To participate in a newly formed computational science lab at the Division of Computer Research and Technology, National Institutes of Health. Provide support and guidance for large community of scientists using state-of-the-art graphics workstations for molecular modeling. Must have an advanced degree in molecular biology, computational chemistry, or a related field. Good interpersonal skills and writing ability are essential. Knowledge of UNIX, Quanta, GCG, Convex, Silicon Graphics and networks will be important. Ample opportunity for independent research in computational biomedical science. Send resume or Application for Federal Employment (SF-171), and transcript to:

Assistant Director, DCRT Bldg. 12A, Room 3033 National Institutes of Health 9000 Rockville Pike Bethesda, Maryland 20892

The U.S. Government is an Equal Opportunity/Affirmative Action Employer.

**Staff Scientist** Leading biotech firm seeks Staff Scientist in its Bone Program who will be responsible for the isolation and purification of osteogenin, a boneinductive protein, from bone matrix to accelerate fracture healing and curing of craneofacial defects; conduct research on isolation, purification and characterization of osteogenin from bone matrix using several purification techniques, including reverse phase HPLC. The Staff Scientist will work closely with biologists, biotechnologists and biochemical engineers to further develop the clinical applications of osteogenin. The qualified candidate must have PhD in Biochem + 4 years' experience in the position offered or 4 years' experience conducting advanced research in bone cell biology, this must include 2 years of hands-on experience in the bioassay of osteogenin; preparation of implants; small animal surgical procedures and interpretation of data for bone formation using histological, biochemical and statistical methods. Also required: proven ability to isolate, purify and characterize novel bone-inducing osteogenins from extracellular matrix of bone using affinity methods, HPLC, reverse phase high pressure liquid chromatography and preparative gel elution methods and a record of publication in bone cell biology and biochemistry in scientific journals. Salary: \$39,900/yr. for 40 hrs./wk. Apply by resume only (2 copies) to Case #00814, MA Dept. of Employment and Training, Special Programs, 1st Floor, 19 Staniford St., Boston, MA 02114. Equal opportunity employer.

### **POSITIONS OPEN**

**RESEARCH ASSOCIATE.** Immediately available to study the role of arterial wall proteoglycans in the pathogenesis of atherosclerosis. Ph.D. required; experience in cellular and molecular biology desirable. Send résumé with three references to:

Gerald S. Berenson, M.D. Louisiana State University Medical Center (LSUMC) 1542 Tulane Avenue New Orleans, LA 70112

LSUMC is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE. M.D. or Ph.D. with strong background in tissue culture, especially in myoblast culture and cloning, immunocytochemistry, and physiology related to muscular dystrophy research. Familiar with animal experiment research work and vital staining technology. Salary at \$24,000 per year. Send résumé and three recommendation letters by 25 September 1990 to: Mrs. Edna Flynn, Tennessee Job Service, 1295 Poplar Avenue, Memphis, TN 38104.

RESEARCH ASSOCIATE/POSTDOCTORAL FELLOW. To investigate transition from host to phage metabolism after infection of *E. coli* with phage T4, involving cloning and analysis of generally lethal immediate/early genes and biochemical studies of specific phage proteins. Position entails working with, and training of, undergraduate students. Minimum qualifications: B.S. or B.A. degree, experience in molecular biology and bacterial viruses, including microbiological techniques, biochemical tracer work, and DNA cloning and sequencing. Salary dependent upon qualifications. Submit résumé, letter of application including discussion of qualifications, and three letters of reference by 25 October 1990 to: Elizabeth M. Kutter, The Evergreen State College, Olympia, WA 98505.

### RESEARCH ASSOCIATE IN MOLECULAR VIROLOGY

The Infectious Diseases Division, Department of Medicine, Jefferson Medical College, Philadelphia, Pennsylvania, invites applications for the above position. Candidates require doctorate and experience in molecular virology. Laboratory to be developed will focus on molecular retrovirology. Position immediately available. Faculty rank to be determined by credentials.

Forward curriculum vitae and ten references to: Dr. Roger J. Pomerantz, Director, Division of Infectious Diseases, Department of Medicine, Jefferson Medical College, 1025 Walnut Street, Philadelphia, PA 19107. Affirmative Action/Equal Opportunity Employer.

### RESEARCH ASSOCIATE

Position available for a research associate at the University of South Florida, Tampa, Florida.

Applications are invited for a molecular biologist (or

Applications are invited for a molecular biologist (or related field) with experience in cloning, gene probe development, and PCR to conduct research on cryptosporidium and water-borne disease.

Qualifications: Ph.D. in molecular biology or related field with experience in the isolation and analysis of DNA and RNA, cloning, gene probe development, and PCR. The individual must have hands-on experience with most of the common molecular methods.

Two-year funding; full-time, 12-month appointment. Salary range: \$18,500 to \$22,500 with benefits. Application deadline: 28 September 1990.

Application deadline: 28 September 1990. Send curriculum vitae and three letters of reference to:

Dr. Joan Rose University of South Florida College of Public Health 13301 Bruce B. Downs Boulevard, MHH 104 Tampa, FL 33612

The University of South Florida is an Affirmative Action/ Equal Opportunity Institution.

MUSHROOM RESEARCH. Monterey Laboratories, a division of Monterey Mushrooms, Inc. seeks an individual to conduct research on the nutritional requirements of the cultivated button mushroom. Background in the areas of plant or fungal physiology, extracellular enzyme systems or fungal metabolic pathways would be helpful. Applicants should have the minimum of a B.S. degree in the life sciences with appropriate professional experience or advance training. Forward résumé and the names of three references, to: Human Resources, Monterey Laboratories, P.O. Box 189, Watsonville, CA 95077.

### **POSITIONS OPEN**

# RESEARCH IN BIOCHEMICAL TECHNOLOGY REPUBLIC OF CHINA

The Union Chemical Laboratories of Industrial Technology Research Institute is seeking researchers and project managers for biochemical technology developments including biosensor, amino acids, antibiotics, and biologically active compound applications. Qualified applicants will possess:

- A Ph.D. degree in chemical engineering, biochemical engineering, biomedical engineering, or biochemistry.
- At least 2 years of experience in biochemical research on one of the above research topics.
   Applicants are asked to send current résumé, including

Applicants are asked to send current résumé, including a list of publications, to:

Mr. Bill E. H. Tsai Manager of Human Resources Department Union Chemical Laboratories 321 Kuang Fu Road, Section 2 Hsinchu, 30042, Taiwan, Republic of China

### UNIVERSITY OF TORONTO

RESEARCH POSITIONS. To investigate the chromosomal basis of human cancer. Projects include the molecular characterization of acquired chromosome translocations and correlations between laboratory and clinico/pathological findings. Excellent facilities available include fully staffed and equipped cytogenetic and molecular genetic laboratories, a large patient database, cryopreserved malignant cells, and a vibrant research community. Candidates should hold a Ph.D. or M.D. degree. Investigators with experience in an area of molecular biology are preferred. Evidence of independent research ability is important. Salary is commensurate with qualifications. Applications including curriculum vitac, statement of research and career goals, graduate transcripts, and the names, addresses, and telephone numbers of three referees should be sent to: Dr. Ian D. Dubé, Director, University Hospitals Cancer Cytogenetics Program, Banting Institute, 100 College Street, Toronto, Canada M5G 1L5.

### BIOLOGICAL ANTHROPOLOGIST

Geo-Centers, Inc., a high-technology, growth-oriented research and development company, has openings for a research anthropologist. Responsibilities include creating and implementing innovative research designs for basic morphometric research and applied problems in human engineering of protective clothing and equipment. Ph.D. preferred. Strong candidates will have backgrounds in anatomy/osteology or growth/development with biostatistics and computer science. Applicants must be U.S. citizens. Send letter, curriculum vitae, undergraduate and graduate transcripts (informal), and names of three references by 28 September 1990 to: Geo-Centers, Inc., Human Resources Department, P.O. Box Newton Upper Falls, MA 02164. An Equal Opportunity/Affirmative Action Employer.

RESEARCH INVESTIGATOR. The Department of Dermatology, University of Michigan, seeks a Ph.D. with one or more years of postdoctoral experience in molecular and/or cellular biology to join an established laboratory studying the molecular biology of growth regulation and gene regulation in human skin. Areas of interest include: receptor tyrosine kinases, growth factor gene regulation, retinoid and steroid receptors, and dermal-epidermal interactions. Send curriculum vitae and two letters of reference to: James T. Elder, M.D., Ph.D., University of Michigan, C560 MSRB II, Box 0672, Ann Arbor, MI 48109–0672. An Equal Opportunity/Affirmative Action Employer.

The Department of Ophthalmology, University of Illinois at Chicago (UIC), College of Medicine, has a full-time, tenure-track RESEARCH FACULTY POSITION for a molecular biologist working in the area of ocular disease, to begin on 24 October 1990. The department has excellent research facilities and active research programs. Candidate must have a Ph.D. in basic science and an established research program. Salary and rank commensurate with education and experience. Application deadline is 24 September 1990. Submit curriculum vitae to: John W. Chandler, M.D., Professor and Head, Department of Ophthalmology (m/c648), UIC Eye Center, 1855 West Taylor Street, Chicago, IL 60619. The UIC is an Affirmative Action/Equal Opportunity Employer.

### RESEARCH INVESTIGATOR IN ATHEROSCLEROSIS

The Department of Pathology and Laboratory Medicine and the Atherosclerosis Center of the Medical College of Pennsylvania are recruiting either a clinical pathologist or a Ph.D. research scientist to work within a multidisciplinary atherosclerosis group. The successful candidate is expected to have or to develop an independent research program and to collaborate with other members of the Atherosclerosis Center. Preference will be given to applicants whose research is on some aspect of the cellular/molecular basis of atherosclerotic plaque formation. This appointment may be at either an ASSISTANT OR ASSOCIATE PROFESSOR level. Excellence in teaching graduate students and/or medical students is essential. The Medical College of Pennsylvania is an Affirmative Action/Equal Opportunity Employer. Please send letters of application, curriculum vitae, names of three professional references, and a summary of research interests to:

Barbara Atkinson, M.D., Chairman Department of Pathology and Laboratory Medicine Medical College of Pennsylvania 3300 Henry Avenue Philadelphia, PA 19129

ANIMAL PHYSIOLOGIST. Research cellular structure and organ-system functions of animals (including circulation, excretion, movement, glands, and their relationship to bodily functions) with focus on GI tract, microcirculation, and blood flow. Experiment to determine effects of internal and external environmental factors on hypertension including anatomical tests on mammals, using optical imaging processors on isolated GI blood vessels. Base salary: \$30,000 annually. Hours: 8 a.m. to 5 p.m., Monday to Friday. Minimum qualifications: M.S. degree in physiology; 2 years of previous research in animal physiology, including knowledge and expertise with in vitro microcirculation techniques (especially video imaging and tissue culture), GI microcirculation, and autonomic and enteric nervous systems. Experienced in use and operation of electron, light, and immunology. Send résumés to: Job Order #5550025, 875 Union Street, N.E., Salem, OR 97311. An Equal Opportunity Employer.

### RESEARCH ENTOMOLOGIST SYSTEMATICS

The Systematic Entomology Laboratory, Agricultural Research Service, United States Department of Agriculture, invites applications for a position to study the systematics of weevils with emphasis on agricultural groups. Applicants must have earned a Ph.D. or master's degree in entomology or a related discipline or have directly related experience, and have knowledge of systematic theory and methods. Position is located in the Smithsonian's Museum of Natural History. Selectee will have the opportunity to participate in the Maryland Center for Systematic Entomology, a consortium with the University of Maryland and the Smithsonian that trains quality graduate students. Send curriculum vitae or an SF-171, grade transcripts, a statement of qualification, a DD-214 and SF-15 for veterans, with announcement number D-O-B0031 to: Personnel Division, 6305 ty. Lane, Room 361, Greenbelt, MD 20770–1435, Attention: Jim Lynch. Telephone: 301-344-0105.

Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR (RESEARCH). Needed by a southwestern Ohio university to study host defense mechanism of human urinary tract infections; organize and supervise diagnostic laboratory for urine culture and analysis, teach urine microbiology class, and coordinate laboratory sessions involving microbiology urodynamics, and semen analysis for medical students and family medicine residents. Applicant must possess a Ph.D. in medical microbiology with 1 year of experience as a postdoctoral fellow in microbiology and must additionally include 1 year of research in host-bacteria relationships, microbial ecology, bacterial physiology, immunology, study of microbial virulent factors using recombinant DNA technology. Forty hours weekly, 8:00 a.m. to 5:00 p.m., Monday to Friday; \$37,000 yearly salary. Must have proof of legal authority to work permanently in United States. Send resume in duplicate (no calls) to: S. Holton, Job Order #1099715, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

## Some Biotech Companies Spend A Lot Of Time Building Their Public Image.

### We Prefer Building Innovative Products.

For more than 20 years, Syva has been a leading developer and marketer of assays and instrument systems to detect drugs of abuse, monitor the blood levels of therapeutic drugs and diagnose infectious diseases. This year we will begin marketing a highly specific and sensitive blood screening test for HIV-1, based on recombinant DNA technology. We are also developing tests for thyroid function disorders, fertility and cancer. Join us and put your expertise to work in our Microbiology Development group, creating the next generation of Syva products.

### **Senior Scientist**

Serving in both a technical and supervisory capacity, you will develop and apply highly sensitive solid phase based immunochemical techniques for detecting antigens related to the diagnosis of infectious diseases. You will be responsible for developing experimental strategies and creative solutions for problems as they occur. You must have a Ph.D. or equivalent in biochemistry, immunology, microbiology or related area and at least 2 years' postdoctoral experience in virology with an emphasis in the study of hepatitis is preferred. In addition, you must have strong leadership skills and be able to adapt to changing priorities.

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### MEDICAL DIAGNOSTICS

### SYSTEMATIC BIOLOGY - UNIVERSITY OF ARIZONA

In the next phase of the development of an interdepartmental program in systematic biology, The University of Arizona invites applications for tenure-track positions; Assistant Professor in Insect Systematics and Assistant to Full Professor in Plant Systematics. It is expected that the successful candidates will assume curatorial responsibilities, establish independent, externally funded research programs, and participate in graduate and undergraduate teaching. All specialties within systematics, broadly defined, will be considered, including field-oriented, collection-based, theoretical, and molecular approaches to problems at any taxonomic level. For example, systematists specializing in biogeography, conservation biology, evolutionary biology, pollination biology, or developmental biology, are encouraged to apply. The staff and facilities of the Molecular Systematics and Evolution Laboratory administered through the Center for Biotechnology will be available. Candidates must have the PhD degree, and postdoctoral experience is desirable. A curriculum vitae, selected reprints, statement of research interests, and the names/addresses of at least three referees, should be submitted by 15 Nov., 1990.

### **INSECT SYSTEMATIST / CURATOR**

This appointment will be in the Department of Entomology, with a possible adjunct appointment in the Department of Ecology & Evolutionary Biology. In addition to research and teaching of introductory and advanced courses in insect systematics, this position involves responsibility for the University's insect collection with 806,000 specimens, which is particularly strong in representation of the regional insect fauna. Curatorial experience is highly desirable. Apply to: Dr. E. A. Bernays, Head, Department of Entomology, University of Arizona, Tucson, AZ 85721.

### PLANT SYSTEMATIST / CURATOR

This will be a split appointment in the Departments of Ecology & Evolutionary Biology (principal department) and Plant Sciences. In addition to research and teaching, this position involves principal responsibility for direction of the University's herbarium, an outstanding collection of 414,000 specimens, primarily representing the arid Southwest. Curatorial experience is highly desirable. Apply to Dr. Michael J. Donoghue, Department of Ecology & Evolutionary Biology, University of Arizona, Tucson, AZ 85721.

AA/EOE. Women and minorities are encouraged to apply.

#### ENVIRONMENTAL PLANT PHYSIOLOGIST UNIVERSITY OF CALIFORNIA RIVERSIDE

A position is available for an environmental plant physiologist at the Statewide Air Pollution Research center (SAPRC), University of California, Riverside, on or after 1 November 1990. The position will be on a fiscal-year basis, at the ASSISTANT RESEARCH PLANT PHYSIOLOGIST level. First-year appointment will be fully supported by SAPRC; in subsequent years part of the salary will come from grants and contracts. Responsibilities include cooperating in current programs of research on effects of air pollution on crop plants, native vegetation, and/or forest trees. The successful applicant will be expected to submit proposals for new projects. Applicants must have a Ph.D. in plant physiology or a related field; experience in environmental physiology, including fieldwork; and good organization and communication skills. Send letter of application, curriculum vitae, statement of research interest, transcripts, and have three letters of recommendation sent to: Dr. Patrick McCool, Chair, Search Committee, Statewide Air Pollution Research Center, University of California, Riverside, is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.

### **BIOCHEMISTRY RESEARCH**

Geo-Centers, Inc., one of the fastest growing high-technology firms in America specializing in R&D work for optical and materials sciences, is currently seeking a candidate to develop assays/methodologies for rapid screening of body fluids and hair for drugs of abuse. B.S./M.S. degree required with a minimum of 2 years of laboratory experience in bio-organic synthesis, immunoassays, and chromatography. Geo-Centers, Inc., offers competitive salaries and an excellent benefits package. U.S. citizenship required. Qualified candidates are encouraged to send their résumé in confidence to: Geo-Centers, Inc., 10903 Indian Head Highway, Fort Washington, MD 20744, Attention: Deborah Hall-Greene, Code 2183. An Equal Opportunity/Affirmative Action Employer. Principals only.

RESEARCH ASSISTANT. Needed by a southwestern Ohio university to isolate lymphocytes and set up experimental cultures applying treatment of radiation (x-rays) and chemicals, harvest lymphocytes and staining for observation and analysis of chromosomes and nuclei, evaluate lymphocyte preparations using manual and semi-automated video microscopy methods to measure induction of micronuclei, and to summarize and analyze experimental data by tabulating, decoding, reducing, and graphical presentation. Applicant must possess a B.S. in biology with 6 months of experience in the job offered or as a biologist. Experience must include 6 months of research in cell biology and cell pathology. Documented volunteer research experience may qualify. Forty hours weekly with overtime as needed, 8:00 a.m. to 5:00 p.m., Monday to Friday; \$7.25 hourly, \$10.88 an hour for overtime. Must have proof of legal authority to work permanently in the United States. Send résumé in duplicate (no calls) to: J. Davies, Job Order #1099719, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

RESEARCH STAFF MEMBER. Performs research in query optimization for relational databases with special emphasis on heuristics for large joint queries and parallelism. Will set new directions, identify important problems, and determine solutions. Will examine different algorithms for combinatorial optimization, and, as appropriate, invent algorithms specific to optimizing large join queries. Will also explore techniques for optimizing queries for parallel execution, taking resource constraints into account. Requirements: Ph.D. in computer science; knowledge of database systems with emphasis in query optimization; knowledge of combinatorial optimization algorithms and their application to query optimization, demonstrated ability to design and implement algorithms and design experiments to test the efficacy of the algorithms; demonstrated ability to carry out simulations and perform statistical analysis. Above requirements should be demonstrated by Ph.D. dissertation, academic coursework, and publication record. Forty hours per week; \$62,000 per year. Job and interview site: San Jose, California. Send this ad and your résumé to: Job #JJ 17556, P.O. Box 9560, Sacramento, CA 95823–0560 not later than 24 September 1990.

### **POSITIONS OPEN**

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Animal Physiology and Nutrition Unit, Columbia, Missouri, announces a permanent RESEARCH ANIMAL PHYSIOLOGIST position. The incumbent will conduct research on production-related stress problems in food-producing animals as part of an environmental physiology program in cooperation with the Animal Science Department, University of Missouri. Emphasis is on: (i) thermal tolerance and adaptation; (ii) stress-mediated immune dysfunction, inhibition of growth, production, and reproduction; and (iii) neuro-endocrine regulation of physiological systems. The incumbent should have expertise in one or more of the following areas: environmental physiology, immunology, endocrinology, cell biology, and/or growth and development. Ph.D. is desired. *Must be U.S.* citizen. Salary is commensurate with education and expe rience (\$35,825 to \$59,216). For information about the position, contact: Maynard Anderson, 314-882-1135 For application information, contact: Janie Carr, USDA-ARS, Personnel Operations Branch, Western Section, W09, 3rd Floor, 6305 Ivy Lane, Greenbelt, MD 20770–1435. Telephone: 301-344-4569. Applications of the control cations in response to this advertisement should be marked ON050. Applications must be postmarked by 15 October 1990. ARS is an Equal Opportunity Employer.

### SENIOR TECHNICIAN

The Brigham and Women's Hospital at Harvard Medical School is seeking a senior technician to oversee state-of-the-art monoclonal antibody production; 1+ years of experience at producing hybridomas is required. Please send résumés for this and other research opportunities to: Brigham and Women's Hospital, Attention: June Virgo, Human Resources, 75 Francis Street, Boston, MA 02115. An Equal Opportunity Employer, M/F/H.

RESEARCH TECHNICIAN POSITION. Available immediately to conduct research on monocot transformation. Successful candidates must have a M.S. of B.S. degree with experience in plant tissue culture and/or molecular biology. Candidates with a strong motivation are encouraged to apply. Send a résumé and three letters of reference by 30 September 1990 to: Dr. Sam Ha, 330 Smyth Hall, Department of Crop and Soil Environmental Sciences, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061.

RESEARCH ENGINEER. For northeastern Ohio hospital needed to perform and direct all biomaterial aspects of designing and manufacturing artificial heart blood pumps; work on polymeric materials, polymerization reactions, solution casting methods, and molding of cardiovascular elastomers; research blood surface interactions involving natural and polymeric materials; establish protocols and conduct fatigue tests of clastomers and biological material utilized in the diaphragms of artificial heart blood pumps; establish protocols and conduct in vitro flow pattern studies; and devise techniques for seamless coating of internal blood pump surface. No experience required in the above duties but applicants will qualify with a Bachelor of Science in biomedical engineering or polymer science and 3 years of experience in development of cardiovascular devices; biomaterials processing (polymer process design and control of specialized surface and structural materials used in cardiovascular devices; polymer/polymer and polymer/metal bonding); in vitro testing of cardiovascular devices, including flow visualization, pressure, and flow monitoring techniques; fatigue characterization of biomedical polymers and evaluation of biocompatibility, and blood compatibility of materials. Forty hours per week, 8 a.m. to 5 p.m., Monday through Friday; \$31,417.45 per year. Must have proof of legal authority to work permanently in the United States. Qualified applicants send résumé in duplicate (no calls) to: J. Davies, Job Order No. 1984592, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

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ASSISTANT RESEARCH SCIENTIST. To direct, conduct, and report on chemical disposition studies in animals for government and industrial agencies. Requires: Ph.D. in biochemistry, drug metabolism, or related discipline and at least 2 years of postdoctoral research in biochemical toxicology conducting chemical disposition studies in mammals. The successful applicant must have experience in the use of radioisotopes; skin permeation techniques; pharmacokinetics; animal surgery; chemical synthesis; the isolation of metabolites by HPLC, TLC, and GLC; and their identification by MS, IR, UV, and NMR spectroscopy. Teaching and supervision of technical staff, report writing, and presentation of data to government agencies as well as participation in teaching of biochemical/toxicological techniques to graduate students will be required. Salary: \$30,000 per year; 40 hours per week. Qualified applicants send resumé or application letter with advertisement by 27 September 1990 to: Arizona Department of Economic Security, Attention: 732A RE: 5332187, P.O. Box 6123, Phoenix, AZ 85005. Proof of authorization to work in United States required if hired. Equal Opportunity/Affirmative Action Employer-paid ad.

SCIENTIST, SENIOR HAPLOID RESEARCH. Conduct and direct research to develop more efficient production of double haploid (of paternal or maternal origin) vegetable crops using isolated microspore/anther/irradiated pollen-embryo culture systems on genotypes and crops identified by breeding programs. Develop research plans, liaise with staff, prepare written/oral reports, participate in meetings, develop contracts, prepare job descriptions, and conduct reviews. Position requires: experience in research dealing with effects of donor genotype and bud sampling on microspore culture of Brassica napas, use of commercial cultivars and breeding lines with use of naphthaleneacetic acid in the initiation medium, studying changes in microspore plating density and plate incubation as deviations from previous techniques, and supervision of the activities of subordinate research scientists. Requires Ph.D. in agriculture and 3 years of experience in job offered or 6 years of experience in position of haploid research associate. Salary for 40-hour week: \$58,000 per year. Place of employment and interview: Woodland, California. Send this ad and your résumé to: Job #CC17874, P.O. Box 9560, Sacran.ento, CA 95823–0560 no later than 22 September 1990. If offered position, must have legal right to work in the United States.

TECHNICAL SUPERVISOR (Analytical Supervisor I). The Clinical Coagulation Laboratory at Duke University Hospital is seeking a technical supervisor (analytical supervisor I) to be responsible for the technical and general supervision of a 24-hour clinical laboratory. Responsibilities will include implementation tests developed by result departments, performing special tests requiring knowledge of techniques in protein chemistry, and devising quality assurance protocols for non-standards assays. Applicants must have a minimum of a B.S. degree in medical technology or chemistry, certification by a national agency, and 3 years of experience in the field. A Ph.D. is preferred. Duke University Hospital is a 1000-bed, tertiary-care teaching hospital with large cardiology and oncology services. Interested applicants should send curriculum vitae to: Lee A. Barbieri, Operation Director, Box 3057 MC, Durham, NC 27710. Duke University is an Equal Opportunity/Affirmative Action Employer.

### VIROLOGIST

The Yerkes Regional Primate Research Center and Department of Pathology, Emory University, have an opening for a virologist with experience in retrovirus research. Candidates should have a Ph.D., D.V.M., M.D., or equivalent and should have sufficient research experience to demonstrate their ability to establish an independent research program in areas related to the pathogenesis of AIDS and related retroviruses in animal models. The successful applicant will also participate in ongoing clinical, immunological, and pathological studies with the simian immunodeficiency virus. Salary is negotiable and is commensurate with experience. The position is available immediately. Letters of application including curriculum vitae, a brief statement of research interests, and the names of three references, should be sent to: Dr. Harold McClure, Associate Director, Yerkes Primate Research Center, Emory University, Atlanta, GA 30322. Emory University is an Equal Opportunity/Affirmative Action Employer.



### CAREER OPPORTUNITIES IN PLANT BIOTECHNOLOGY

**DEKALB** Plant Genetics, a leading agricultural seed company, has openings for independent and innovative B.S. or M.S. level scientists to join our multidisciplinary team at the forefront of maize genetic research. As research assistants with our Discovery Research group in Groton, CT the successful candidates wil be involved in the design and execution of experiments as well as interpretation and communication of results. Opportunities are available in the following areas.

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Gene expression. You will be involved in the engineering of tissue specific gene expression of important agronomic traits. This position involves construction of cDNA libraries, promoter dissection experiments and molecular analysis of transgenic plants. Experience in plant tissue culture, PCR and  $in\ situ$  hybridization is desirable

In addition to a stimulating scientific environment, we offer excellent salary and benefit packages and relocation assistance to an attractive southeastern Connecticut shore community. Qualified applicants should submit their resume and the names, addresses and phone numbers of three professional references to: Ms. Dianne Dellarco, DEKALB Plant Genetics, Eastern Point Road, Groton, CT 06340

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### Roche Institute Of Molecular Biology

# GRADUATE FELLOWSHIPS

pplications are invited for graduate fellowships in a program sponsored jointly by The Roche Institute of Molecular Biology and the Department of Bilogical Sciences at Columbia University. Selected students will complete their thesis research at The Roche Institute while academic requirements will

be fulfilled in the Department of Biological Sciences at Columbia. Upon completion of this program, students will receive a Ph.D. degree from Columbia University

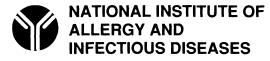
The Roche Institute of Molecular Biology, founded in 1967, is dedicated to basic research in emerging areas of molecular biology. Staff members enjoy complete independence in their choice and pursuit of research problems. The Institute is located in suburban New Jersey. approximately 10 miles west of Manhattan, making it readily accessible for lectures and courses at Columbia University and other educational centers in New York City.

Fellowships include stipend and paid tuition. Applications must be received by January 1st to be considered for the following academic year. For further information and application form, contact: Administrative Office, 201/235-2783, Roche Institute of Molecular Biology, Nutley, New Jersey 07110. We are an equal opportunity employer



### Roche Institute of Molecular Biology

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### AIDS POSTDOCTORAL TRAINING PROGRAM

The National Institute of Allergy and Infectious Diseases (NIAID) announces funding for approximately 50 new postdoctoral fellows in AIDS research through NIH Institutional Training Grants at 12 participating institutions. This cohesive multidisciplinary program is intended to stimulate interactions between basic research scientists, biostatisticians, epidemiologists, and clinicians. The Division of AIDS plans a yearly meeting of the AIDS postdoctoral fellows to encourage collaboration and exchange of information.

Each participating institution will select its own candidates. Women, minorities, and handicapped persons are encouraged to apply. For application information, contact the Principal Investigators listed below:

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|   | G Scott         | (305)547-6676 |

\*Biostatistics only

### **ANNOUNCEMENTS**

AQUATIC BIOLOGY AND PLANT ECOL-OGY. Applications for nomination for NSERC Women's Faculty Awards are invited. These Canadian government-funded awards of 5 years of salary are only available to women. Must be female Canadian citizens or landed immigrants with a Ph.D. Send curriculum vitae, statement of research interests, and reprints to: R. J. F. Smith, Biology Department, University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N 0W0 by 21 September 1990. Telephone: 306-966-4400. FAX: 306-966-4461. BITNET: SMITHR@SASK.

### THE HEISER PROGRAM FOR RESEARCH IN LEPROSY

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GRANT APPLICATIONS are being accepted by the American Health Assistance Foundation. Grants are available for 2 years, \$100,000 maximum per year, renewable. Deadline date: 31 October 1990. Write to:

> American Health Assistance Foundation Research Grants Manager 15825 Shady Grove Road, Suite 140 Rockville, MD 20850

The Joseph P. Kennedy, Jr., Foundation will make RESEARCH AWARDS of \$50,000 to \$100,000 on 1 July 1991. Projects sought in the biomedical or biosocial bases of mental retardation with special emphasis on the pre- and perinatal periods to prevent MR. Applications from investigators new to mental retardation research or "high-risk" proposals from established investigators are encouraged. Two-page Letters of Intent that include objectives, methodology, summary budget, and curriculum vitae of principal investigator are due 1 October 1990. Complete proposals will be solicited after preliminary review. Write to:

> Robert E. Cooke, M.D. The Joseph P. Kennedy, Jr., Foundation 1350 New York Avenue, Suite 500 Washington, DC 20005-4709

### THE MICHELSON-MORLEY AWARD

The prestigious Michelson-Morley Award is presented by Case Institute of Technology to recognize the distinctive achievements of a particular scientist or engineer. The award is named in honor of Albert A. Michelson, first professor of physics at Case Institute and 1907 Nobel laureate, and Edward W. Morley, distinguished professor of chemistry at Western Reserve College. Joint research by Professors Michelson and Morley is highlighted by their experiments related to the velocity of light. These scientific probes prepared the way for the discoveries of Albert Einstein and decisively advanced modern theoretical physics.

The stated purpose of the award is to honor the individual chosen for eminent contributions to knowledge and to the well-being of mankind, to perpetuate the tradition of scholarly inquiry exemplified by the independent and collaborative research of Professors Michelson and Morley, and to call to the attention of the general public the continuing contributions of the scientist and engineer to human welfare.

Deadline for nominations: 15 November 1990.

Nominations should be sent to:

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BIOLOGIST/BIOCHEMIST, MOLECULAR Ph.D. (1982). Gene expression, transcription factors, DNA-protein interactions, protein purification. Seeking research position in industry, government, academia. Box 5, SCIENCE.

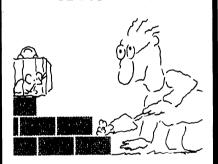
IMMUNOLOGIST, Ph.D. (1986). Three years of postdoctoral training. Extensive experience: cellular/mo-lecular, immunopathogenesis. Seeking academic/industry position. Box 94, SCIENCE.

NEUROSCIENTIST, Ph.D. (1990-91). Behavior, light/electron microscopy, immunohistochemistry, computer. Bilingual (German/English). Extensive publication record, awards. Industrial R&D United States/ Europe. Box 98, SCIENCE.

Ph.D. Experience in molecular biology, molecular cytogenetics, cytogenetics. Wants research position in Canada/Europe. Academic or industry. Box 100, SCIENCE

TOXICOLOGIST, D.V.M., Ph.D. (1966). Animal research, writing, editing, study design, analytical/diagnostic toxicology, contract laboratory, education. Seeks industrial/consultative/academic. Box 96, SCIENCE.

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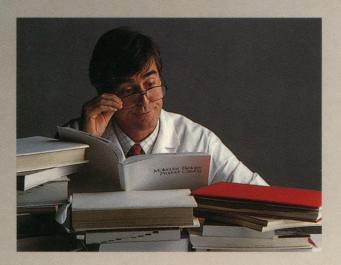
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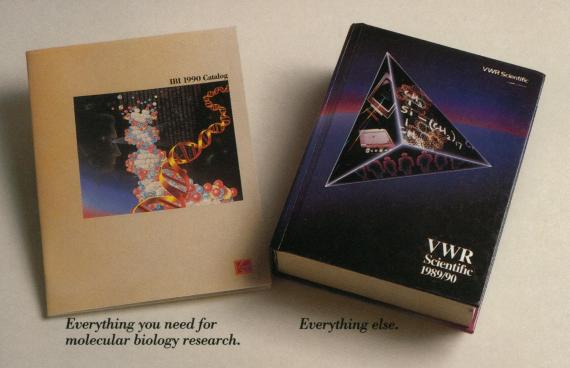
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