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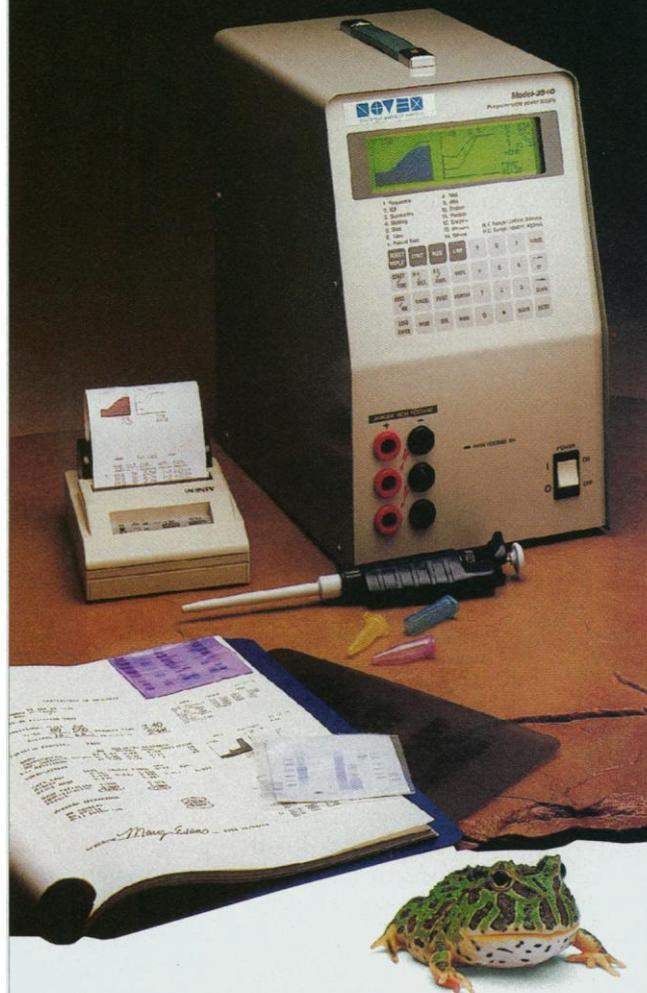


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### Image Analysis Workstation

The Foto/Analyst II computer imaging workstation keeps the power of decision-making in the hands of molecular biology researchers. The Macintosh-based system includes a high-resolution charge-coupled device camera, a thermal transfer printer, and Collage analysis software. The software allows researchers to make their own decisions, instead of having the computer make them. For example, the software allows the user to determine the method for enhancing an image, the parameters for how each spot on an image is quantitated, the regression model used to find information about unknowns, and the way the final data appears. Fotodyne, Inc. Circle 320.

### DNA Purification Kit

The Elu-Quik DNA Purification Kit offers versatility, speed, and simplicity for isolating both large and small amounts of DNA. DNA can be obtained in less than 1 hour from single-cell suspensions, agarose gels, or plasmid preparations without the need for phenol-chloroform extractions or ethanol precipitations. DNA purified with the kit can be used immediately for enzyme reactions, cloning, or sequencing. Schleicher & Schuell. Circle 321.

### Desktop Digital Film Recorder

Designed for sophisticated scientific and business presentations, the GCC ColorFast is a color digital film recorder for the Macintosh. It provides the capability of producing professional-quality 35-mm slides, prints, and color overhead transparencies. Users create their slides in any Macintosh program, preview the slide on-screen, and then print to ColorFast. ColorFast comes standard with two cameras, a 35-mm adapter, and a Pack film adapter. Presentations can be made onto regular E6 slide film, instant

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.

slides, instant pocket overhead transparencies, and instant "peel-apart" prints. An optional package is available for IBM-compatible computers. GCC. Circle 322.

### Monoclonal Antibodies

Diversi-T  $\delta V2(a)$  is a murine monoclonal antibody (MAb) to a variable region epitope on the  $\delta$  chain of the human T cell antigen receptor. It is available in purified and FITC-conjugated forms, and can be used in flow cytometry, immunoprecipitation procedures, protein immunoblotting, and immunochemical staining of live, frozen, and fixed cells. T Cell Diagnostics. Circle 323.

A new range of MAbs directed against adhesion molecules that are expressed on leukocytes, platelets, and tumor cells includes antibodies against CD11a, CD11b, CD18, CD11c, CD15, CD22, CD41, CD44, and CD56. The MAbs can be used in immunocytochemistry and flow cytometry. British Bio-technology Ltd. Circle 324.

### Mutagenesis Kit

The T7 Muta-Gene kit makes oligonucleotide mutagenesis faster and simpler. T7 DNA polymerase, which replaces traditional T4 polymerase in the kit, is a highly processive enzyme that does not perform strand displacement. Its high polymerization rate allows reactions to proceed quickly. T7 alleviates the need for T4 gene 32 protein when copying templates with high secondary structure. Bio-Rad Laboratories. Circle 325.

### Water Purification System

The WaterPro Work Station is designed for applications requiring ion-free, bacteria-free, and organic-free water. Models with an ultrafilter to deliver pyrogen-free water are



also available. All filters and membranes are housed in a completely assembled compact cabinet with epoxy-coated steel front and sides. A feedwater line, drain line, and electrical outlet are the only connections required for operation. Two kinds of water are delivered at a rate of up to 1.6 liters per minute: laboratory grade water provided via reverse osmosis to a gooseneck faucet and Type I reagent grade water through a polishing unit to a dispensing gun. Labconco. Circle 326.

### Gold Immunoprobes

Nanogold-Fab probes are composed of 1.4-nm gold compound particles covalently linked to Fab antibody fragments. The probes, with a Nanogold particle to Fab ratio of close to 1:1, are the smallest gold immunoprobes on the market, according to the manufacturer. They provide performance advantages over colloidal gold preparations, which typically involve 0.2–10 variable stoichiometry and require the entire antibody. The new probes provide greater penetration of cells and nuclei, greater ability to reach sequestered antigens, and greater resolution and detail in electron microscopy, light microscopy, and protein immunoblotting. Nanoprobes. Circle 327.

### Literature

*Model F-2000 Data Manager & Intracellular Cation Software* is an eight-page data sheet detailing a product that provides instrument control and data acquisition. Hitachi Instruments. Circle 328.

*Amino Acid Analysis by Post-Column LC* describes a post-column module that converts a standard high-performance liquid chromatography system into an amino acid analyzer for protein hydrolysates and native samples. The complete system includes a choice of ion-exchange columns, sodium or lithium eluents, reagents, standards, and regenerants. Pickering Laboratories. Circle 329.

*IEEE 488 Interfaces & Data Acquisition Instruments Selection Guide* features more than 100 products, including a price list and product overview chart. IOtech. Circle 330.

*Amersham's Enzymes* is a poster on a complete range of modifying enzymes, genomic grade restriction enzymes, thermophilic restriction enzymes, and general restriction enzymes. Amersham International. Circle 331.

*OTC Open Temperature Chamber* highlights the capabilities of this device. FTS Systems. Circle 332.

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## POSITIONS OPEN

### ASSISTANT PROFESSOR

The Department of Biology invites applications for a tenure-track position in anatomy and physiology beginning fall 1992. A Ph.D. is required. The candidate is expected to teach primarily human anatomy and physiology to health science, nursing and physical education majors, and to establish an independent research program involving both undergraduate and M.S.-level students. Submit a résumé and three letters of reference by 31 December 1991 to: **Dr. Klaus Brasch, Chair, Department of Biology, California State University, 5500 University Parkway, San Bernardino, CA 92407.**

**BOTANIST, ASSISTANT PROFESSOR.** The Department of Biology, Boise State University, seeks applicants for a tenure-track position beginning fall 1992. Ph.D. required, postdoctoral experience desired. Teaching duties include upper division courses in plant systematics and plant physiology, and participation in lower division botany and biology courses. The successful applicant is also expected to establish an extramurally funded research program and to direct herbarium curation. Submit curriculum vitae, reprints, and letters of reference to: **Dr. Marc J. Bechar, Chair, Search Committee, Department of Biology, Boise State University, Boise, ID 83725. Equal Opportunity Employer.**

### ASSISTANT PROFESSOR OF BIOLOGY

Continuing its program of growth and development, the Department of Biology at Boston College is seeking applications to fill one, perhaps two, tenure-track positions at the assistant professor level for the fall of 1992. Boston College is a university with seven separate schools and colleges and over 14,000 students. The Biology Department has an active graduate program with approximately 50 Ph.D. and M.S. students and over 450 undergraduate majors.

The successful candidate will be expected to develop a strong extramurally funded research program in an aspect of eukaryotic cellular biology that complements our current research programs in: cellular and molecular biology; neurobiology and physiology; genetics, immunology, developmental and reproductive biology. The department is committed to excellence in teaching and the new faculty member will, in addition to teaching in their area of expertise, be expected to contribute to needs in one of a number of other areas such as: cellular biology, introductory biology, biochemistry or molecular evolution.

Salary levels, start-up funds and laboratory resources are competitive with other research universities. Applicants must have a Ph.D. degree and have at least 2 years of postdoctoral experience. Applications including curriculum vitae, publications list and a one-page summary of current and future research plans should be sent to the **Search Committee.** Applicants must also arrange for three letters of recommendation to be sent. Application deadline is 20 December 1991; however, early application is recommended since applications will be reviewed as received.

Search Committee  
Department of Biology  
Boston College  
Chestnut Hill, MA 02167

**FACULTY POSITIONS. DEVELOPMENTAL BIOLOGY (1) AND GENETICS (2).** Tenure-track positions at the ASSISTANT PROFESSOR level. (1) Must have Ph.D. with an emphasis in vertebrate or invertebrate animal morphogenesis and be qualified to teach developmental, marine and introductory biology courses. (2) Must have Ph.D. with strong background in genetics to teach modern genetics (with laboratory) and other courses in area of interest. Both individuals must participate in graduate program and establish research programs. Salary commensurate with training and experience. Review of applicants will begin immediately, with a deadline of 29 November 1991 or until position is filled. Applicants should submit application form, curriculum vitae, transcripts, three letters of recommendation and a statement of teaching philosophy and career objectives to: **Dr. Don A. Hay, Chairman, Department of Biology, Box 13003, Stephen F. Austin State University, Nacogdoches, TX 75962. Telephone: 409-568-3601. An Equal Opportunity/Affirmative Action Employer. Applications subject to disclosure under Texas Open Records Act.**

## POSITIONS OPEN

**ASSISTANT PROFESSOR,** Department of Biochemistry and Biophysics, University of Hawaii, School of Medicine. Full-time, nontenure track, to begin 1 January 1992. Annually renewable pending availability of funds and continuation of position authorization. Duties: Teach undergraduate, graduate and medical courses, carry out active research program in biochemistry and/or biophysics. Participate in departmental and school committee work as needed. Minimum qualifications: Ph.D. or equivalent degree with strong background in biochemistry and/or biophysics, postdoctoral experience and a demonstrated potential or ability to obtain extramural funding. Minimum monthly salary: \$3,281. Send curriculum vitae and names of three references to: **Dr. N. V. Bhagavan, Chair, Department of Biochemistry and Biophysics, University of Hawaii, 1960 East West Road, Honolulu, HI 96822. Telephone: 808-956-8490. Closing date: 11 December 1991 or until position is filled. An Equal Opportunity/Affirmative Action Employer.**

**BIOLOGISTS.** Two tenure-track openings at the ASSISTANT PROFESSOR level beginning fall of 1991. One is for a comparative vertebrate physiologist. The other, funded by a grant from the Howard Hughes Medical Institute, is for a microbiologist/immunologist who will establish a cell culture facility. All applicants should be able to teach at both the introductory and advanced undergraduate levels. Broad training in biology, appreciation for the liberal arts tradition in education, and commitment to research involving undergraduates are very desirable. The college, with an enrollment of 1,100, has a highly selective program for undergraduates and is located on a forested 10,000-acre tract on the Cumberland Plateau of Middle Tennessee. Review of applicants will begin on 2 December 1991 but applications will be accepted until suitable candidates are found. Send letter of application, curriculum vitae, transcripts, and three letters of reference to: **Dr. Larry Jones, Chair, Biology Department, The University of the South, Sewanee, TN 37375. Equal Opportunity Employer. Women and minorities are encouraged to apply.**

### BIOLOGIST

Hampden-Sydney College seeks to fill a tenure-track position at the ASSISTANT PROFESSOR level, to start in August 1992. Applicants must hold a Ph.D. in a biological science, should enjoy teaching a wide range of undergraduate biology courses, should have a commitment to liberal arts education, must be able to maintain a research program appropriate to a 4-year college, and will be expected to teach at least half of their hours at the introductory level. Hampden-Sydney College, located in rural south central Virginia, is the nation's tenth oldest institution of higher education. It is a selective liberal arts college for men with an enrollment of 970. The Department of Biology has five faculty members with specialties in: biochemistry and genetics; cell biology and development; invertebrate and evolutionary biology; microbiology and plant biology; and ecology and marine biology. The department graduates about 20 majors each year. Applicants should send curriculum vitae and three letters of recommendation to: **Dr. Anne C. Lund, Chair of the Search Committee, Box 3, Department of Biology, Hampden-Sydney College, Hampden-Sydney, VA 23943. The application deadline is 16 December 1991. Hampden-Sydney is an Equal Opportunity/Affirmative Action Employer.**

**BIOLOGY, ASSISTANT PROFESSOR.** Tenure-track position beginning fall 1992. Teach undergraduate ecology courses; freshman biology for majors and a nonmajors course; supervise undergraduate research projects; opportunity to teach in interdisciplinary environmental science program. Qualifications: Ph.D. in biology, ecology or related discipline; strong commitment to liberal arts and teaching; familiarity with taxonomic biology required. Keene is a pleasant city of 23,000 with many cultural and recreational opportunities, 2 hours from Boston and Maine/New Hampshire seacoast. Forests, lakes, streams, and KSC's 300-acre Cabot Preserve provide fieldwork opportunities. Salary: minimum \$28,200. Send letter of application, résumé and three letters of reference to: **Gaynelle Pratt, Office of Human Resource Management, Keene State College, Keene, NH 03431. Review of applications begins 16 December 1991.**

*Affirmative Action/Equal Opportunity Employer.*

## THE 1992 LOUISA GROSS HORWITZ PRIZE

The Louisa Gross Horwitz Prize was established under the will of the late S. Gross Horwitz through a bequest to Columbia University, and is named to honor the donor's mother. Louisa Gross Horwitz was the daughter of Dr. Samuel David Gross (1805-1889), a prominent surgeon of Philadelphia, and author of the outstanding "Systems of Surgery" who served as president of the American Medical Association.

Each year, since its inception in 1967, Columbia University has awarded The Louisa Gross Horwitz Prize for outstanding basic research in the fields of **Biology** or **Biochemistry**. The purpose of this award is to honor a scientific investigator, or group of investigators, whose contributions to knowledge in either of these fields is deemed worthy of special recognition.

The prize consists of an honorarium and a citation which are awarded at a special presentation event. Unless otherwise recommended by the Prize Committee, the prize is awarded annually. The 1991 awardees were Professors Richard Ernst (Eidgenössische Technische Hochschule-Zentrum, Zürich) and Kurt Wüthrich (Eidgenössische Technische Hochschule-Honggerberg, Zürich).



### QUALIFICATIONS FOR THE AWARD

The Prize Committee recognizes no geographical limitations. The prize may be awarded to an individual or a group. When the prize is awarded to a group, the honorarium will be divided among the recipients, but each member will receive a citation. Preference will be given to work done in the recent past.

Prospective recipients should be nominated to the Chairman of the Horwitz Prize Committee, Dr. Barry Honig. Nomination letters should include:

1. A summary, preferably less than 500 words, of the research on which this nomination is based.
2. A summary, preferably less than 500 words, of the significance of this research in the fields of biology or biochemistry.
3. A brief biographical sketch of the nominee, including positions held and awards received by the nominee.
4. A listing of up to ten of the nominee's most significant publications relating to the research noted under item 1.
5. A copy of the nominee's curriculum vitae.

Send to: Dr. Barry Honig, Department of Biochemistry & Molecular Biophysics, Columbia University, 630 West 168th Street, New York, New York 10032.

**Deadline for receipt of nominations is January 6, 1992.**

## Medical Research Council Clinical Research Initiative *MRC Director of Research* Hammersmith

The MRC wishes to appoint a scientist with a distinguished record in biomedical research to the new position of MRC Director of Research at the Royal Postgraduate Medical School. The Director will be responsible for providing leadership and strategic direction to the MRC-supported research at the School. The post also offers an exceptional and considerable opportunity to develop his/her own research as part of a major initiative, in new facilities.

The Director will play a key role in working with the School in the preparation of an overall strategy for biomedical research at RPMS and will work in close collaboration with existing MRC Unit Directors and team leaders and those transferring from the Clinical Research Centre to ensure the delivery of the MRC's contribution to the strategy. In the early stages, this will also involve planning the investment of resources for several new teams.

He/she will be one of the members of the School Council appointed in consultation with the MRC, and will also be a member of the RPMS Research Committee. The School will propose to the University of London a Professorial title, and it is expected that he/she will sit on other School Committees as appropriate.

The new Director will give strategic direction and allocate resources, in accordance with Council policies and the outcome of peer review, to all MRC Units and teams on site. He/she will also be responsible for the management of MRC core facilities and premises, including the central budget and staff. In these latter tasks he/she will be fully

supported by an administrative director and an Advisory Committee comprising MRC Directors and designated senior staff.

The salary is negotiable within the Council's Special and Supra-special appointments grade (equivalent to University Professorial grades). For a clinically qualified candidate, an appropriate salary at Consultant level would be negotiated. Assistance with relocation expenses is likely to be available.

**Initial discussions are invited with The Secretary, Dr D A Rees, MRC Headquarters Office, 20 Park Crescent, London W1N 4AL (telephone 071-636 5422 ext 6013).**

Applications should consist of a short paper outlining the applicant's views on current trends and desirable future developments in medical research and postgraduate education, including any proposals or indications on how the potential at Hammersmith might be further developed by MRC in partnership with RPMS, together with an outline of the applicant's personal research plans. A curriculum vitae, an up-to-date publications list and the names of three referees are also required. These should be sent, no later than **30 November 1991**, to **Dr D A Rees, Secretary to the Council, at the above address.**

A job description and other additional information may be obtained from Dr Megan Davies at the above address (telephone 071-636 5422 ext. 6020).

The MRC is an equal opportunity employer.

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# MRC

**Medical Research Council**

## POSITIONS OPEN

The Department of Biochemistry and Molecular Biology seeks applications at the **ASSISTANT PROFESSOR** level for a 12-month state-funded tenure-track faculty position effective after 1 July 1992. The position is for an individual with postdoctoral training and research experience using modern approaches in areas of research related to structure/function studies of proteins. The individual is expected to establish an active and externally funded research program. Teaching is at the medical and graduate level. A number of support services are provided. Applicants are required to send a complete résumé, a brief description of research experience, proposed research directions and three letters of reference sent to: **Dr. K. E. Ebner, Chairman, Department of Biochemistry and Molecular Biology, University of Kansas Medical Center, 39th and Rainbow, Kansas City, KS 66103.** Review of applications will begin on 15 January 1992 and continue until the position is filled. *The University of Kansas is an Affirmative/Equal Opportunity Employer.*

### ASSISTANT PROFESSOR JOHNS HOPKINS UNIVERSITY BIOCHEMISTRY/MOLECULAR BIOLOGY

The Department of Biochemistry of the Johns Hopkins University invites applications for a tenure-track position available in September 1992. Outstanding candidates in all areas of biochemistry and molecular biology are encouraged to apply. The successful candidate will be expected to develop a vigorous basic research program and to participate in the training of graduate students. Please send curriculum vitae, reprints of publications, a statement of future research plans, and three letters of recommendation to: **Dr. Roger McMacken, Chairman, Department of Biochemistry, The Johns Hopkins University, School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, MD 21205.** *The Johns Hopkins University is an Affirmative Action/Equal Opportunity Employer.*

### TENURE-TRACK POSITION IN BIOCHEMISTRY AND MOLECULAR BIOLOGY UNIVERSITY OF NORTH DAKOTA

The Department of Biochemistry and Molecular Biology, University of North Dakota of Medicine, invites applications for a tenure-track position at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. A Ph.D. or M.D. degree, postdoctoral experience, and publications are essential. Evidence of some extramural funding and some teaching experience, preferably at the medical or graduate school level, is highly desirable. The individual must have a strong commitment to medical and graduate education and to conducting an independent research program. Duties will include teaching of medical, graduate, and undergraduate students; conducting independent research; and service on committees. Applicants with an interest in any area of biochemistry and molecular biology will be considered. Salary is negotiable based on credentials. Applicants are to submit their curriculum vitae including publications, one-page synopsis, each of present and proposed research, and to cause three letters of reference to be sent. Review of completed applications will begin 15 January 1992 and will continue until the position is filled. Send applications to: **Dr. Robert C. Nordlie, Chairman, Department of Biochemistry and Molecular Biology, University of North Dakota School of Medicine, Grand Forks, ND 58202.** *The University of North Dakota is an Equal Opportunity Employer.*

**ASSISTANT PROFESSOR.** The Department of Chemistry at Stanford University will consider applications for a tenure-track appointment as assistant professor starting in the 1992/1993 or 1993/1994 academic year. Preference will be given to applicants in physical chemistry or closely related fields. Applicants must be strongly motivated toward creative research and have a commitment to teaching at the undergraduate and graduate levels. In applying, please send curriculum vitae, list of publications, a brief statement of research interests (three pages or less) and, in addition, have three letters of recommendation sent to: **Professor Harden M. McConnell, Chairman, Department of Chemistry, Stanford University, Stanford, CA 94305.** *Stanford is committed to Equal Opportunity through Affirmative Action in Employment, and we are especially eager to identify minority persons and women with appropriate qualifications.* Applications should be received by 1 December 1991.

## POSITIONS OPEN

**ASSISTANT PROFESSOR, BIOINORGANIC CHEMISTRY.** University of California, Santa Cruz (UCSC). The Department of Chemistry and Biochemistry invites applications for a junior faculty position beginning fall 1992, contingent on availability of funding. Salary range: \$35,900 to \$38,800 (9-month basis). Candidates must have a Ph.D. or equivalent in chemistry or related field, demonstrated record of excellence and outstanding potential for independent research in bioinorganic chemistry, and a commitment to and a talent for teaching at both the undergraduate and graduate level. Curriculum vitae, brief summary of research interests and three confidential letters of recommendation should be sent to: **Professor Pradip Mascharak, Chair, Bioinorganic Search Committee, Department of Chemistry and Biochemistry, University of California, Santa Cruz, CA 95064.** Refer to: **Provision #234-912** all correspondence. *UCSC is an Equal Opportunity/Affirmative Action/IRCA Employer. We especially welcome applications from qualified women and minority candidates.* Closing date for the receipt of completed applications is 15 December 1991.

**ASSISTANT PROFESSOR, CELL BIOLOGIST.** Applicants are invited for a tenure-track faculty position. The faculty member will be expected to establish an independent research program in the study of cellular and/or molecular biology and to contribute to the teaching of histology, gross anatomy, or physiology. Research interests in the department include developmental neurobiology, craniofacial development, and sensorimotor integration. Applicants should send complete curriculum vitae, a brief statement of research interests and plans, selected reprints, and the names of three references by 1 February 1992 to: **Dr. Lee Robertson, Department of Anatomy, School of Dentistry, Oregon Health Sciences University, 611 S.W. Campus Drive, Portland, OR 97201-3097.** *An Equal Opportunity/Affirmative Action Employer.*

## GENETICS

The Department of Biological Sciences anticipates a tenure-track faculty appointment at the **ASSISTANT PROFESSOR** level open in the area of genetics. Applicants using yeast or another microbial genetic system as a model to approach basic cellular or molecular problems are especially encouraged to apply. The successful candidate will be expected to establish an extramurally funded research program, train graduate students, and participate in undergraduate education. Applicants should send curriculum vitae, a summary of research interests and goals, and arrange to have at least three letters of reference sent to:

Genetics Search Committee  
Department of Biological Sciences  
University of Pittsburgh  
Pittsburgh, PA 15260

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

### FACULTY POSITION MOLECULAR VIROLOGIST

The Department of Medical Microbiology and Immunology, The Ohio State University Medical Center, is seeking applications for a tenure-track position at the level of **ASSOCIATE PROFESSOR** in the area of molecular virology. Preference will be given to candidates whose research involves molecular studies on retroviruses, although strong candidates in other areas of molecular virology will be considered. The successful candidate is expected to develop a strong independent research program in her/his area of expertise, be involved with the training of graduate students and postdoctoral fellows, and to assist in the teaching of graduate and medical students. There is ample opportunity for this person to interact with several virologists, including retrovirologists and herpes virologists. Applications for this position should include curriculum vitae, a statement of research interest, reprints of selected publications, and the names and addresses of three individuals who can provide letters of recommendation. *Women and minorities are encouraged to apply.* Materials should be sent to: **Dr. Ronald Glaser, Chairperson, Department of Medical Microbiology and Immunology, 5072 Graves Hall, 333 West 10th Avenue, The Ohio State University Medical Center, Columbus, OH 43210.** *The Ohio State University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSISTANT OR ASSOCIATE PROFESSOR BIOCHEMISTRY/MOLECULAR BIOLOGY

Goucher College invites applications for a tenure-track position beginning September 1992 for a biochemist with molecular biology expertise. Appointment to be made, preferably at the assistant professor level, in Departments of Biology and Chemistry (ACS-certified). Primary responsibilities will include curriculum development and teaching in biochemistry and molecular biology course sequences. Excellence in teaching emphasized. Active research program involving undergraduate participation expected. Ph.D. required, postdoctoral and teaching experience preferred. *Women and minorities are encouraged to apply.* Please send curriculum vitae, statement of teaching and research interests, and three letters of recommendation by 6 December 1991 to: **Dr. George Delahunty, Department of Biology, Goucher College, Baltimore, MD 21204.**

*An Equal Opportunity Employer.*

### DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

#### ASSISTANT PROFESSOR PROTEIN CRYSTALLOGRAPHY

Applications are invited for a tenure-track position in Macromolecular Structure, preferably Protein Crystallography, at the assistant professor level starting August 1992. Applicants are required to have a doctoral degree and postdoctoral research experience. The successful candidate is expected to develop a vigorous independent research program and participate in our undergraduate and graduate teaching programs. He/she will join a strong group of biophysicists as part of a continuing commitment to establish an outstanding program in structural biology. Salary for this 9-month appointment will be commensurate with experience and qualifications. Summer salary may be generated from teaching or research sources.

In order to ensure full consideration applications must be received by 1 December 1991. Interviews may be conducted before 1 December 1991, but no final decision will be made before this date.

Applicants should submit curriculum vitae, a list of publications, a short statement of future research plans, and the names of at least three references to: **Dr. Andrew H.-J. Wang, Chairman, Search Committee, Department of Physiology and Biophysics, 156 Davenport Hall, 607 South Mathews, Urbana, IL 61801; telephone: 217-244-6637.** *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

The Department of Chemistry, Yale University, invites applications for positions at the **ASSISTANT PROFESSOR** level, effective academic year 1992. We seek bright teacher-scholars who show promise for developing outstanding research programs in inorganic and organic chemistry.

Applicants should send curriculum vitae, a statement of research interests and plans, and should arrange for the submission of three letters of recommendation. All materials should be received by 6 December 1991. Send applications to: **Chair, Faculty Search Committee, P.O. Box 6666, New Haven, CT 06511-8118.** *Yale University is an Equal Opportunity/Affirmative Action Employer.*

**MICROBIAL GENETICIST.** The Department of Biological Sciences at Mississippi State University is seeking applications for a 9-month, tenure-track position, **ASSISTANT PROFESSOR** level, starting August 1992. The successful applicant will be expected to develop a vigorous, externally funded research program, to direct graduate students, and to teach undergraduate and graduate level courses in microbial genetics. The opportunity for multidisciplinary collaborative research is available and strongly encouraged. Applicants must have a Ph.D. in a relevant field, exhibit evidence of potential research productivity, and postdoctoral experience is desirable. Interested persons should submit curriculum vitae, graduate transcripts, a statement of research goals, reprints, and the names, addresses, and telephone numbers of three professional references by 15 January 1992, or until position is filled. Address correspondence to: **Dr. Frank Champlin, Chair, Microbial Geneticist Search Committee, Department of Biological Sciences, P.O. Drawer GY, Mississippi State, MS 39762.** *Mississippi State University is an Affirmative Action/Equal Opportunity Employer.*

**KUWAIT UNIVERSITY**  
**College of Science**  
**Department of Zoology**

Applications are invited for the positions of Professor and Associate Professor in the Department of Zoology of Kuwait University with specialties in the fields of:

Animal Behavior  
Desert Ecology  
Marine Biology  
Arid Zone Ecology  
Biology of Chordates

The successful applicants will be expected to teach undergraduate and post graduate courses, supervise graduate students and undertake a strong research program in their field of specialization. Preference will be given to those applicants who are currently enjoying university appointments. Applications will be considered for appointment commencing February 1, 1992 or September 1, 1992.

For application forms and conditions of service please write to:

Kuwait University Office  
Embassy of the State of Kuwait  
3500 International Drive, N.W.  
Washington, DC 20008

Completed application forms must be mailed directly to:

Chairman  
Department of Zoology  
College of Science  
Kuwait University  
P.O. Box 5969  
Safat 13060  
KUWAIT

**National Institutes of Health**  
**NATIONAL INSTITUTE OF DENTAL RESEARCH**  
**EXTRAMURAL PROGRAM**

The Extramural Program, the organizational unit of the National Institute of Dental Research (NIDR) responsible for promoting and managing all dental research training and manpower development awards and research contracts for the NIDR, invites applications for three Health Scientist Administrator positions.

**1) Assistant Director for Program Development**  
GM-0601-15

Salary Range \$61,643 pa - \$80,138 pa  
(Supervisory Position)

**2) Director, Periodontal Diseases Program**

GS-0601-12, 13, or 14  
Salary Range \$37,924 pa - \$68,129 pa

**3) Director, Craniofacial Development and Disorders**

GS-0601-12, 13, or 14  
Salary Range \$37,924 pa - \$68,129 pa

Activities include planning and implementing research initiatives through grants, contracts and/or cooperative agreements and providing administrative and scientific oversight of proposals and awards.

Applicants must have a Ph.D. degree (or possess equivalent combination of experience and training) in a science related to health, dentistry and/or medicine; accomplishments in a research area of interest to the Program, and demonstrated ability in health science administration.

Appointment to these positions will be in the Civil Service at the grade levels indicated above. Alternatively, appointment in the Commissioned Corps of the U.S. Public Health Service may be appropriate. U.S. citizenship is required. Salary is commensurate with qualifications and experience.

Applicants must submit a SF-171, (available in any Federal Personnel Office), curriculum vitae and bibliography. Applicants must have or obtain a Civil Service Notice of Rating as a Health Scientist Administrator prior to appointment.

*Application and documents must be submitted by November 30, 1991 to:*

**Ms. Faye M. Harbrant**  
**Personnel Management Specialist**  
**National Institute of Dental Research**  
**National Institutes of Health**  
**9000 Rockville Pike**  
**Building 31, Room 2C23**  
**Bethesda, MD 20892**  
**(301) 496-6971**



*NIH is an Equal Opportunity Employer*



## TECHNICAL MANAGER

Kemin Industries (Asia) Pte Ltd, located in Singapore is part of the Kemin Group of Companies and is committed to Research & Development, Production and Marketing of Products to the Animal Feed Industry. The Kemin Group is involved in the production of Antioxidants, Fungal and Bacterial Inhibitors, Carotenoid Pigmenters, Flavours and Enzyme Products.

An individual is sought to Ph.D level with a strong background in Biochemistry, previous experience in chemical analysis, microbiology and/or enzymology is preferred. The Technical Manager should have excellent management, communication and technical presentation skills.

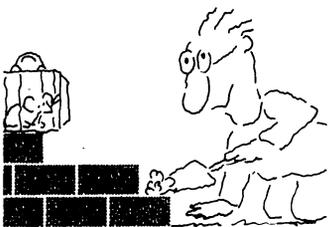
The Technical Manager will be required to initiate Research and Development programs, provide technical support and services for our sales and marketing program. A certain amount of international travel will be required.

This appointment provides the opportunity to work in a multi-disciplinary environment with the challenge of working on a variety of different topics.

Competitive salary with benefits package including relocation allowance will be offered.

Contact : Managing Director  
Kemin Industries (Asia) Pte Ltd  
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Fax No. : 65-2650209

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**SCIENCE**

## POSITIONS OPEN

### MOLECULAR BIOLOGISTS MONTREAL NEUROLOGICAL INSTITUTE DEPARTMENT OF NEUROLOGY AND NEUROSURGERY MCGILL UNIVERSITY

Applicants are invited for two tenure-track positions at the ASSISTANT PROFESSOR level in the Department of Neurology and Neurosurgery, McGill University, at the Montreal Neurological Institute. The successful candidates will have had at least 2 years of relevant postdoctoral experience and will be expected to develop independent research programs based on extramural funding and to participate in graduate training. The new appointees will interact with and strengthen an active group of seven independent investigators studying various aspects of neuromuscular development, function and disease. We are particularly interested in candidates using primarily molecular techniques applied to the biology and pathology of motor and/or sensory neurons. Laboratory start-up assistance is available. The expected starting date would be early to mid-1992. Please address applications, including curriculum vitae, an outline of research plans and three letters of recommendation to: Dr. George Karpati, Montreal Neurological Institute, 3801 University Street, Montreal, Quebec, H3A 2B4 Canada. FAX: 514-398-8310.

### FACULTY POSITIONS DEPARTMENT OF PHARMACOLOGY

The Department of Pharmacology at Stanford University School of Medicine invites applications for several tenure-track positions at the ASSISTANT PROFESSOR level. Candidates must have a Ph.D. or M.D. degree and postdoctoral research experience. Candidates should be interested in developing independent research experience. Candidates should be interested in developing independent research programs that utilize biochemical, genetic, and molecular biological approaches to analyze problems of pharmacological interest, particularly in the areas of cancer biology or neuroscience. Appointees will interact with other faculty members with strong research programs in signal transduction, hormone action, gene regulation, and cell growth and differentiation. Appointees will also participate in teaching medical pharmacology and in graduate (Ph.D.) training in a stimulating medical environment.

*Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.* Candidate should send curriculum vitae, a description of future research plans, and at least three letters of reference to: James P. Whitlock, Jr., M.D., Department of Pharmacology, Stanford University School of Medicine, Stanford, CA 94305-5332.

### FACULTY POSITION DEPARTMENT OF MOLECULAR BIOLOGY UNIVERSITY OF WYOMING

Applications are invited for a tenure-track faculty position in the department of molecular biology at the level of ASSISTANT PROFESSOR. We seek an individual with a strong experimental background in molecular biology whose research interests may include molecular aspects of microbial pathogenesis or virology. A number of other areas of research interests, however, could complement existing programs and aid the department's continuing development. The successful candidate will be expected to develop or transfer an active research program, be committed to excellence in teaching at the undergraduate and graduate levels, and to interact with other faculty in a vigorous research environment. Only applicants with a strong research record and the ability to develop extramurally supported research programs will be considered. The department has excellent facilities and is planning to add a number of new faculty during the next several years. Start-up funds are available and salary will be competitive. Laramie is located in the Rocky Mountains and affords easy access to a number of outdoor activities.

Screening of candidates will begin 2 January 1992. Applicants should submit curriculum vitae, bibliography, statement of research and teaching interests and plans, as well as have three letters of reference sent to: Chairman, Department of Molecular Biology, University of Wyoming, Laramie, WY 82071-3944. *The University of Wyoming is an Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

**INTEGRATIVE NEUROSCIENTIST.** The Department of Psychology at the University of Illinois at Urbana-Champaign with the Neuroscience Program invites applications for a tenure-track ASSISTANT PROFESSOR position beginning 21 August 1992. Exceptional candidates at higher levels may be considered. Preference will be given to applicants whose research is in one or more of the following: mechanisms of sensorimotor coordination and perception; modeling of neural systems with relationships to behavior; cognitive neuroscience. Salary negotiable. Send curriculum vitae, reprints, a statement of research interests and three letters of recommendation by 20 January 1992 to: Janice Juraska, Psychology Department, University of Illinois, 603 East Daniel, Champaign, IL 61920; telephone: 217-333-8546. *Affirmative Action/Equal Opportunity Employer; women and minorities are encouraged to apply.*

**NEUROBIOLOGY FACULTY POSITION.** The Neurobiology Program invites applications for the position of ASSISTANT PROFESSOR from individuals with research interests in molecular, computational, or biophysical approaches to neurobiology. Applicants must have a Ph.D. and at least 2 years of postdoctoral experience. They will be expected to develop an independent, fundable research program, and contribute to the teaching efforts of the program. We are especially interested in individuals who can interact effectively with existing program members. Research interests of the 16 neurobiology faculty members include developmental neurogenetics, development of visual and auditory systems, neuron differentiation, muscle biology and motor control, neurotransmission, mathematical models of visual and vestibular sensory mechanisms, and computational neuroscience. Salaries start at \$34,000 and are commensurate with qualifications. Cost of living is moderate. Start-up funds and facilities are excellent. Applicants should send curriculum vitae, statement of research interests and teaching experience, and arrange for three letters of reference to be received by 15 January 1992 to: Jean Witkowski, Department of Zoological and Biomedical Sciences, Ohio University, Athens, OH 45701. *Ohio University is an Equal Opportunity/Affirmative Action Employer.*

### CALIFORNIA ORAL DIAGNOSTIC SCIENCES/RESEARCH

Full-time, tenure-track ASSISTANT PROFESSOR position available in the Section of Diagnostic Sciences at University of California, Los Angeles (UCLA) School of Dentistry. Candidates should have a D.D.S., D.M.D. or M.D. degree issued from a United States or Canadian university and advanced research training is required, with a Ph.D. or equivalent degree desirable. Specialty Board eligibility or California license to practice is required. The section is seeking an individual to engage in independent research as well as to interact in the section's multi-disciplinary interests regarding molecular aspects of oral medicine and HIV oral manifestations. Responsibilities include independent and cooperative research, and didactic and clinical instruction in oral medicine. *The University of California is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.* Send application and curriculum vitae to: Dr. L. R. Eversole, Chairman, Search Committee, Section of Diagnostic Sciences, UCLA School of Dentistry, 10833 Le Conte Avenue, Room 53-058 CHS, Los Angeles, CA 90024-1668. Position available 1 July 1992.

Columbia University, Department of Psychology, anticipates making faculty appointments at the ASSISTANT PROFESSOR level in one or more of the following areas of specialization: developmental psychology, behavioral or cognitive neuroscience, social psychology, human cognition. For all positions, we seek recent Ph.D.'s who have demonstrated exceptional promise for excellence both as scholar-scientists and as teachers at the undergraduate and graduate levels. Applicants should submit their curriculum vitae and copies of recent publications, and have three letters of recommendation sent to: Personnel Search Committee, Department of Psychology, Schermerhorn Hall—Box 29, Columbia University, New York, NY 10027. The position for which application is being made should be indicated clearly. *Applications from members of minorities and from women are encouraged. Columbia University is an Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### ION CHANNEL PHYSIOLOGIST PHARMACOLOGIST

The University of Arizona Departments of Physiology and Pharmacology invite applications for a tenure-track **ASSISTANT PROFESSOR** position with a research specialty in CNS Ion Channel Biology. The position is funded by the ARL Division of Neurobiology with its tenure line in physiology or pharmacology.

Applicants are expected to build a vigorous, creative research program and participate in neuroscience teaching of medical and graduate students. The applicant's research interests should focus on mechanisms of ion channels to elucidate vertebrate CNS functions. Preference will be given to candidates with expertise in single channel measurements combined with second messenger regulation, kinetic analysis, structure-function relationships or molecular biology approaches.

Candidates should have substantial postdoctoral experience and must document a strong potential for developing an independent research program. Curriculum vitae, a research objectives statement and three letters of evaluation should be sent to: **Raphael Gruener, CNS Ion Channel Search Committee, Department of Physiology, University of Arizona College of Medicine, Tucson, AZ 85724.** Completed applications must be submitted by 30 November 1991; however, applications will be accepted until the position is filled.

*The University of Arizona is an Equal Opportunity/Affirmative Action Employer; applications from female and other minority group members are strongly encouraged.*

### PLANT PHYSIOLOGY THE OHIO STATE UNIVERSITY

This is a 9-month, tenure-track position at the **ASSISTANT PROFESSOR** level. Postdoctoral experience is expected. The successful applicant shall develop a modern, externally funded research program, direct graduate students, and teach at the advanced and introductory levels. Send curriculum vitae, reprints, statements of research interests and teaching philosophy, and names, addresses, telephone and/or FAX numbers of three references by 6 January 1992 to: **Dr. Roger P. Hangarter, Search Committee, Department of Plant Biology, The Ohio State University, 1735 Neil Avenue, Columbus, OH 43210.** *The Ohio State University is an Equal Opportunity/Affirmative Action Employer; applications from women and minorities are especially encouraged.*

Willamette University is seeking a **VERTEBRATE ZOOLOGIST** with ecological background for a tenure-track position as **ASSISTANT PROFESSOR** beginning August 1992. Teaching responsibilities include: ecology, vertebrate morphology, field zoology. Successful candidates must have a Ph.D., teaching experience, and an ongoing research program. Submit a letter of introduction, curriculum vitae, transcripts of college work, and names of three references to: **Dr. Grant Thorsett, Willamette University, Salem, OR 97301.** Telephone: 503-370-6482. Screening will begin 16 December 1991 and continue until the position is filled. *Willamette is an Equal Opportunity Employer and encourages diversity in its faculty.*

### FACULTY POSITIONS TEXAS A&M UNIVERSITY

The Center for Advanced Invertebrate Molecular Sciences and the Departments of Biology and Entomology are jointly searching for new faculty at the **ASSISTANT OR ASSOCIATE PROFESSOR** level (tenure track) with training in the following areas: biochemistry; molecular, cellular and developmental biology. Preference will be given to candidates with graduate and postgraduate experience in *Drosophila* molecular biology. The successful candidate must have demonstrated potential to develop a vigorous, extramurally funded research program and participate in graduate and undergraduate instruction. Applications will be accepted until 1 December 1991 or until position is filled and should include curriculum vitae, description of goals and interest, and three letters of references mailed or sent by FAX to:

**Dr. Linda A. Guarino, Chair of Search Committee  
Center for Advanced Invertebrate Molecular Sciences  
Texas A&M University  
Department of Entomology  
College Station, TX 77843-2475  
Telephone: 409-845-7556  
FAX: 409-845-8934**

*Texas A&M University is an Equal Opportunity Employer.*

1 NOVEMBER 1991

## Director, Drinking Water Research Division.

U.S. EPA has an opening for the above in the Risk Reduction Engineering Laboratory, Cincinnati, Ohio.

The Drinking Water Research Division implements a program of national and international scope and importance in technology research to develop new and improved methods for the identification, treatment and control of contaminants in drinking water. This involves not only the removal of contaminants via treatment, but control of the complex chemical and microbiological changes that take place in the distribution system and thereby contribute to human exposure from undesirable contaminants in potable water. To perform these functions, the Division utilizes approximately 57 full time federal employees, a budget of \$5 million per year, and support contract staff in the areas of environmental/sanitary engineering, chemistry, biology, microbiology, statistics, computer science, systems and cost analysis and related specialties. An in-depth knowledge of drinking water treatment, regulations and engineering/modeling/cost development is critical. The Division's objectives are achieved through inhouse, grant, contract, interagency, and other cooperative agreement mechanisms, and may be pursued by bench, pilot plant or field-scale projects.

The successful applicant must have the ability to: 1. develop and execute work plans while fostering effective human resources management, 2. recruit, select, appraise and develop employees, and to reward/improve employee performance, incorporate affirmative action principles into managerial responsibilities, 3. identify, evaluate and implement means of improving work processes and/or methods of operation.

Minimum qualifications include a bachelor's or higher degree (advanced degree desirable) in Environmental or Chemical Engineering and several years of professional experience directly related to the position being filled. Candidates also must demonstrate their potential to develop the qualities of successful supervision. At the work location there is a "wellness center and a child care center." This is a career civil service position within a salary range of \$61,643 to \$80,138.

Candidate must meet U.S. Office of Personnel Management qualification requirements and must be a U.S. citizen. Call (513) 569-7840 (or (513) 569-7816) or send an Application for Federal Employment (SF-171) or resume to:

**U.S. Environmental Protection Agency  
[CAD-06]  
Human Resources Management Division  
Cincinnati, OH 45268**

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## CHAIR BEHAVIORAL NEUROSCIENCE PROGRAM

The State University of New York is seeking a Chair for a newly-developed Behavioral Neuroscience Program. The program will be interdisciplinary, involving faculty from both the School of Medicine and College of Art & Sciences. A number of tenure-track faculty lines in addition to the Director's will be devoted to the further development of this Program, and this is to be built on top of the significant existing strengths that already exist in various Departments (e.g. Psychiatry, Psychology and Neurobiology & Behavior).

The Chair's position will be a senior, tenured faculty appointment. Departmental affiliation is negotiable. We are looking for a well-recognized scientist with an outstanding track record of research involving the study of the nervous system and its relationship to behavior. We expect the Chair to maintain a vigorous, productive, and independently funded research program. Ample space and start-up funds will be provided. The position also requires recruiting, administrative, and leadership skills to promote further development of the Behavioral Neuroscience Program.

Applicants should submit a curriculum vitae, with the names and addresses of at least 3 references, to: **Murray S. Sherman, Chair, Behavioral Neuroscience Search Committee, Department Neurobiology and Behavior, University at Stony Brook, Stony Brook, NY 11794-5230.** The closing date for applications is 22 November 1991.

SUNY at Stony Brook is an affirmative action/equal opportunity educator and employer.

## POSITIONS OPEN

### TEXAS WESLEYAN UNIVERSITY MOLECULAR EVOLUTION/ECOLOGY

Tenure-track faculty position (ASSISTANT PROFESSOR) beginning August 1992. Completed Ph.D., commitment to undergraduate education, experience in applying molecular techniques to problems in evolution or ecology preferred. Teaching responsibilities include undergraduate courses at all levels. Send résumé, transcripts, statement of teaching/research interests by 1 December 1991 to: **Dr. N. C. Kneten, Dean, Science/Humanities, Texas Wesleyan University, Fort Worth, TX 76105.** *Affirmative Action/Equal Opportunity Employer.*

### THE UNIVERSITY OF MANITOBA DEPARTMENT OF MEDICAL MICROBIOLOGY MICROBIOLOGIST

The Department of Medical Microbiology, University of Manitoba, is continuing to increase its research base in molecular biology and invites applications for a tenure-track position at the rank of **ASSISTANT OR ASSOCIATE PROFESSOR**, to begin after April 1992.

Applicants should hold a Ph.D. and/or M.D. degree, should have research experience and a strong publication record in the area of molecular biology of pathogenic microorganisms of humans. Excellence in other areas of research such as biochemical or cellular aspects of microbial pathogenicity will also be considered. The successful candidate will be expected to establish an independent research program and participate in undergraduate medical and graduate teaching programs. Salary will be commensurate with experience and qualifications.

*The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, aboriginal people, and persons with disabilities. The university offers a smoke-free work environment, save for specially designated areas. Priority consideration will be given to Canadian citizens and permanent residents.*

Send curriculum vitae, a summary of research of interests, and names and addresses of three referees to: **Dr. Robert Brunham, Professor and Chairman, Department of Medical Microbiology, University of Manitoba, 543-730 William Avenue, Winnipeg, Manitoba, Canada, R3E 0W3.** Applications will be received until 31 January 1992.

The Department of Pathology and Laboratory Medicine, Medical University of South Carolina, invites applications for a tenure-track appointment at the **ASSISTANT/ASSOCIATE PROFESSOR** level in the general field of the molecular biology of pediatric solid tumors. The successful applicant will serve as liaison between clinical laboratories establishing diagnostic protocols in molecular pathology. The candidate should have a Ph.D. and/or M.D. degree, postdoctoral experience, and a strong commitment to excellence in research, teaching and service.

The position is available 1 July 1992. Candidates should send their curriculum vitae, statement of research interests, and names of three references to: **Dr. A. Julian Garvin, Chairman, Department of Pathology and Laboratory Medicine, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.**

University of Alaska Anchorage (UAA), Biomedical Program (WAMI) in the School of Nursing and Health Sciences is now accepting applications for **ASSISTANT/ASSOCIATE PROFESSOR** of biological sciences. Full-time, permanent with benefits, tenure-track, 9 months per year. Salary: depends on experience. This position is funded through the UAA Biomedical Program which is part of the medical education agreement between the University of Washington School of Medicine and the states of Washington, Alaska, Montana and Idaho (WAMI). The successful candidate must have a Ph.D. or equivalent degree, postdoctoral research activity, experience teaching neuroscience and gross anatomy to medical students, and the potential to develop a research program and attract extramural funding. Research activities must complement the needs and resources of the Biomedical Program. Copies of a complete job description can be obtained from the **UAA Personnel Office, 3890 University Lake Drive, Anchorage, AK 99508.** Telephone: 907-786-4608. Review of applications will begin 6 January 1992 and continue until the position is filled. *UAA is an Affirmative Action/Equal Opportunity Employer and Educational Institution. Must be eligible for employment under the Immigration Reform and Control Act of 1986.*

## POSITIONS OPEN

### YALE UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF CELLULAR AND MOLECULAR PHYSIOLOGY TWO JUNIOR FACULTY POSITIONS

Applicants are solicited for two tenure-track positions at the rank of **ASSISTANT OR ASSOCIATE PROFESSOR** (term appointments) in the Department of Cellular and Molecular Physiology, Yale University School of Medicine. Candidates must hold an M.D., Ph.D. or equivalent degree and have experience and interest in physiology at the cellular and/or molecular levels. We are especially interested in candidates with experience in the areas of membrane biology, neuroscience, and signal transduction. Opportunities are available for both collaborative and independent research as well as for graduate and medical student teaching.

*Qualified women and minority group members are encouraged to apply.* Complete curriculum vitae, a statement of research interests and goals and three letters of reference should be sent by 15 December 1991 to:

**Dr. Walter F. Boron, Chairman  
Department of Cellular and Molecular Physiology  
333 Cedar Street  
P.O. Box 3333  
New Haven, CT 06510**

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

### FACULTY POSITIONS IN PHARMACOLOGY

Applications are invited for two tenure-track faculty positions at the level of **ASSISTANT OR ASSOCIATE PROFESSOR** to be filled over the next 1 to 2 years. The position requires a Ph.D. degree, preferably in pharmacology, and relevant postdoctoral experience in contemporary areas of neuropharmacology. Special consideration will be given to candidates with interests in application of molecular and/or in vivo techniques to address receptor structure and function, receptor autoradiography and signal transduction processes.

The successful candidate will be expected to participate in teaching pharmacology to both pharmacy students in the professional program and graduate students. Capabilities for generating extramural research support should be clearly evident. Applicants should forward complete curriculum vitae including teaching experience, and outline of future research plans and the names of three references. Preference will be given to applications received by 15 November 1991.

**Richard A. Ohvall, Dean  
College of Pharmacy  
Oregon State University (OSU)  
Corvallis, OR 97331-3507**

*OSU is an Affirmative Action/Equal Employment Opportunity Employer and is responsive to dual-career needs.*

### NEUROBIOLOGIST (SENIOR FACULTY POSITION)

Applications are invited for a position in neurobiology at the **ASSOCIATE OR FULL PROFESSOR** level. Successful candidates are expected to have a demonstrated commitment to teaching and research and show evidence of stable extramural funding. Applications are particularly encouraged from individuals whose research complements existing departmental strengths in cellular neurophysiology, developmental neurobiology, sensorimotor integration, and the neural basis of behavior. Participation in the development of an interdepartmental graduate training program in neuroscience is also expected. Competitive salary, facilities, and start-up funds are available. Review of applications will begin 10 December 1991 and continue until a suitable candidate is identified. Interested individuals should submit curriculum vitae, statement of professional goals, reprints of their three most significant papers, and the names of three references to:

**Neurobiology Search Committee  
T. H. Morgan School of Biological Sciences  
University of Kentucky  
Lexington, KY 40506-0225**

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

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

## POSITIONS OPEN

**CHEMIST/CHEMICAL ENGINEER, ASSISTANT/ASSOCIATE PROFESSOR.** Tenure-track position beginning fall 1992. Teach courses in introductory and advanced industrial chemistry, including polymers and specialty courses in established B.S. industrial chemistry/B.A. chemistry programs; teaching, supervision of cooperative education students and development of active undergraduate research program. Qualifications: Doctorate and significant experience in the chemical industry required; polymer experience and successful prior college teaching preferred. Seeking exceptional teaching faculty to develop innovative and successful program and to join us in attaining VISION 2000, a commitment to becoming the public undergraduate college of choice in New England by the year 2000. Rank and salary dependent upon qualifications; minimum for Assistant, \$28,200; Associate, \$33,450. Send letter of application, résumé, and three letters of reference to: **Gaynelle Pratt, Office of Human Resource Management, Keene State College, Keene, NH 03431.** Review of applications to begin 1 December 1991. *Women and minorities are encouraged to apply.*

*Affirmative Action/Equal Opportunity Employer.*

Two **ASSISTANT OR ASSOCIATE PROFESSORS.** The Department of Biology at Georgia Southern University is seeking to fill two tenure-track positions, one in animal physiological ecology (search #25360) and the other in developmental biology (search #25361) for fall 1992. Teaching responsibilities for both positions will include human anatomy and physiology, as well as general biology. Individuals hired may also participate in other lower level and upper level biology courses. Ph.D. required by 3 January 1992. Commitment to excellence in teaching and research also required. Postdoctoral experience desirable. Rank and salary dependent upon qualifications. Send letter of application indicating position desired, curriculum vitae, brief statement of personal teaching philosophy and research interest, and unofficial copies of all college transcripts to: **Dr. John W. Parrish, Head, Department of Biology, Georgia Southern University, Statesboro, GA 30460-8042.** Deadline for receipt of all materials is 3 January 1992. *The names of applicants and nominees, résumés and other general non-evaluative information are subject to public inspection under the Georgia Open Records Act. Georgia Southern is an Affirmative Action/Equal Opportunity Institution.*

**RETROVIROLOGIST.** The Department of Microbiology, School of Medicine, Georgetown University, Washington, D.C., invites applications for a tenure-track position (12-month basis) at the **ASSOCIATE OR ASSISTANT PROFESSOR** level. The anticipated starting date is 1 July 1992. Applicants must have a Ph.D. or M.D. degree and relevant postdoctoral experience in research on retroviruses. The successful candidate will be expected to develop an independent research program on retroviruses, to interact with other investigators requiring retrovirus expertise in their research programs and to participate in microbiology teaching to medical and graduate students. Send curriculum vitae, the names, telephone numbers and address of three references by 1 February 1992 to: **Search Committee, Department of Microbiology, 3900 Reservoir Road, N.W., Georgetown University, Washington, DC 20007.** *Georgetown University is an Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT PROFESSOR** to perform research involving recombinant DNA expression and structure-function relationships of cellular receptors; protein electrophoresis, immunochemical techniques, gene regulation/development; supervise training and work of two to three technicians and postdoctoral fellows; participate with clinical and research faculty in various academic and research activities; develop data for independent funding; submit abstracts and publications for peer-review journals and make presentations at seminars, conferences and meetings. Ph.D. or equivalent (molecular biology, protein chemistry, biochemistry, or equivalent), 3 years of research training and 2 years of experience in tissue culture, DNA protein interactions or related area. Evidence of five publications and an ability to develop research support. Annual salary: \$40,000; 40 hours per week. Apply at the **Texas Employment Commission, Houston, Texas,** or send résumé to: **Texas Employment Commission, TEC Building, Austin, TX 78778; J. O. #6344723.** *Ad paid by an Equal Opportunity Employer.*

# WORLD AIDS FOUNDATION

The World AIDS Foundation (WAF) announces its intent to support research and education relating to AIDS in the developing world. The goal of the WAF is to facilitate information exchange and to assist developing countries to respond to the AIDS pandemic.

The Foundation is particularly interested in projects that are catalytic, and once in place could have a multiplicative effect. The WAF is specifically interested in supporting:

- A) short-term, in-country training for clinicians, allied health professionals and technicians;
- B) fellowships to support training for national experts;
- C) development and testing of new concepts and demonstrations for preventing the spread of HIV; and
- D) highly focused workshops which enhance the scientific process and transfer knowledge needed in the effort against HIV infections and AIDS.

The limit of any single funding request to the Foundation is \$200,000.

## Application Procedures

Concept letters and applications may be prepared in either English or French. Applicants should submit concept letters for initial consideration. Following review of concept letters, applicants may be invited to submit complete proposals. The annual deadline for receipt of concept letters is February 1, 1992.

Concept letters, full applications and inquiries concerning the programs of the World AIDS Foundation should be directed to either:

**World AIDS Foundation  
Assistant Secretary for Health  
c/o Director, Fogarty International Center  
National Institutes of Health  
Building 31, Room B2C02  
9000 Rockville Pike  
Bethesda, Maryland 20892  
U.S.A.**

**or**

**World AIDS Foundation  
c/o Director  
Institut Pasteur  
28 rue du Docteur Roux  
75724 Paris, Cedex 15  
FRANCE**



1992  
Summer Courses

**BIOLOGY OF PARASITISM: Modern Approaches (June 14-August 15)** This course, for students, postdocs, and faculty focuses on the molecular basis of parasite function and the host/parasite interaction, with special emphasis on the most recent and exciting developments in this area. The course has four sections: cell biology, immunology, molecular biology, and biochemistry. Each section includes daily lectures from course faculty and outside speakers, and intensive laboratory experimentation. Limited to 20 students. Director: John C. Boothroyd, Stanford University.

**EMBRYOLOGY: Cell Differentiation and Gene Expression in Early Development (June 20-July 31)** An advanced level course intended for graduate students, postdoctoral fellows, and other research scientists who wish a current treatment of major issues in the experimental analysis of developmental biology of the embryo, and the diverse intellectual approaches now useful in this field. Limited to 24 students. Directors: Eric H. Davidson, California Institute of Technology; Michael Levine, University of California, San Diego; and David R. McClay, Duke University.

**MARINE ECOLOGY: Concepts, Techniques, and Applications of Molecular Probes (June 14-July 25)** An intensive course for graduate students, postdoctoral fellows, and established investigators who wish to learn the techniques of molecular biology and their application to physiological and ecological investigations. Lectures and discussions will accompany the laboratories and will focus on the technologies being learned and applications to specific problems in marine ecology. Limited to 24 students. Director: Kenneth H. Nealson, University of Wisconsin.

**MICROBIAL DIVERSITY (June 14-July 30)** An intensive course intended for graduate or postdoctoral students as well as established investigators who desire to become competent in microbiological techniques for isolating and working with a broad range of microbes. Limited to 20 students. Directors: Martin Dworkin, University of Minnesota and John Breznak, Michigan State University.

**NEURAL SYSTEMS AND BEHAVIOR (June 14-August 7)** Intended for graduate and postdoctoral students as well as established investigators. The central theme of this course is the neural bases and ontogeny of behaviors. Twenty students participate in intensive laboratories/lectures which combine state-of-the-art neurobiological techniques with behavioral and developmental analyses. Directors: Ronald Calabrese, Emory University and Martha Constantine-Paton, Yale University.

**NEUROBIOLOGY (June 14-August 15)** For 12 pre- and postdoctoral fellows who intend to work in cellular and molecular neurobiology. Postdoctorals and students at an advanced stage of their graduate training are particularly encouraged to apply. The themes will be the functions of neural cells, the molecules involved in these functions, and the organization of molecular components required to generate cellular activity. Directors: Leonard K. Kaczmarek, Yale University and Irwin Levitan, Brandeis University.

**PHYSIOLOGY: Cellular and Molecular Biology (June 13-July 25)** For a class of 36 graduate students, postdoctoral fellows, and established investigators who desire to learn the methods and research strategies used to study physiology at the cellular and molecular levels. Recent college graduates on their way to graduate school and physicians reentering laboratory research are also encouraged to apply. Interested students may apply for two weeks of postcourse research starting July 27. Director: Thomas D. Pollard, Johns Hopkins University.

**APPLICATION DEADLINE: March 2, 1992**  
*Partial financial aid is available to qualified applicants.*

Contact: Florence Dwane, Admissions Coordinator,  
Office of Sponsored Programs,  
**MARINE BIOLOGICAL LABORATORY,**  
Woods Hole, MA 02543 (508) 548-3705, ext. 216

**GRADUATE PROGRAM  
CELL AND MOLECULAR BIOLOGY  
(MULTI-DEPARTMENTAL)**

- GENE EXPRESSION AND REGULATION
- DEVELOPMENTAL BIOLOGY AND GENETICS
- SIGNAL TRANSDUCTION AND MEMBRANE BIOLOGY
- STRUCTURAL AND COMPUTATIONAL BIOLOGY
- MOLECULAR VIROLOGY, IMMUNOLOGY AND AIDS
- CELL CYCLE, GROWTH CONTROL AND CANCER BIOLOGY
- LIPID METABOLISM AND CARDIOVASCULAR BIOLOGY
- THE HUMAN GENOME AND GENE THERAPY

The Graduate school at BAYLOR COLLEGE OF MEDICINE has created a graduate program in CELL AND MOLECULAR BIOLOGY stressing basic research in the above areas. Students accepted for studies leading to the Ph.D. will receive financial support. For further information please contact Dr. Savio L.C. Woo, Director at the following address:

**Graduate Program in Cell and Molecular Biology  
Baylor College of Medicine  
The Graduate School  
One Baylor Plaza, Room S101  
Houston, Texas 77030**

**Phone: (713) 798-6557**



# Leicester University

## School of Biological Sciences Departments of Botany and Zoology CHAIR OF ENVIRONMENTAL BIOLOGY

Applications are invited for a Chair of Environmental Biology to be held as a joint appointment in the Departments of Botany and Zoology. The appointee will be expected to direct the development of the teaching programme in environmental biology and ecology and to conduct research in an appropriate field. It is expected that the Chair holder will take a normal share of undergraduate teaching, but will initially be free of major administrative responsibilities. Candidates should be willing to interact productively with existing research groups, and the successful candidate will be expected to provide academic leadership to the Environmental Biology Group which already exists in the School. The group consists of those members of the School of Biological Sciences with teaching and/or research interests in ecology or environmental biology. It is expected also that the work in Environmental Biology will relate to other cognate disciplines throughout the University. The field of scholarship of the appointee is not restricted, but it is hoped that the Chair will bring field-based or theoretical expertise to strengthen and extend current activities.

Salary will be negotiated within the Professorial Range, current minimum £28,364 p.a.

Further particulars may be obtained from the Staffing Office (Academic Appointments), University of Leicester, University Road, Leicester LE1 7RH, UK. Tel: (0533) 522439. UK candidates should submit sixteen copies of their application. (Overseas candidates may submit one copy). The University FAX number is (0533) 522200.

*Closing date for applications: 16 December 1991.*

## Faculty Position

**Department of Biochemistry,  
Molecular Biology and Cell Biology**

### Northwestern University

The Department of Biochemistry, Molecular Biology and Cell Biology seeks outstanding candidates for a full-time faculty appointment (rank open).

Research programs in the Department include biochemistry, biophysics, cell biology, developmental biology, genetics, immunology, microbiology, molecular biology, structural biology, and virology.

Exceptionally qualified candidates in any area will be considered, but the search will focus on molecular and cellular biology.

Candidates should submit a curriculum vitae, a list of publications, a statement of future research objectives and letters of reference from three persons knowledgeable of the candidates' research and teaching abilities to:

To ensure full consideration, applications should be received by January 15, 1992.



Chairman, Faculty Search Committee  
Department of Biochemistry  
Molecular Biology and Cell Biology  
**Northwestern University**  
Evanston, Illinois 60208-3500

Women and members of minority groups are urged to apply. AA/EOE. Hiring is contingent upon eligibility to work in the United States.

## MUSEUM DIRECTOR

The University of Utah is accepting applications for a Director of the Utah Museum of Natural History. The museum is designated as the state museum of natural history with disciplines in anthropology, biology, and geology. Successful candidate must have a Master's degree in a related area with ten years senior level experience which includes development and planning in a natural history museum. Must possess good communications skills and a firm commitment to personal and professional integrity. Thorough knowledge of museum management and a proved record of fund raising required. An earned Doctorate and involvement in museum professional organizations at a national level preferred. Manages and directs all aspects of the Utah Museum of Natural History and reports directly to the Vice President for Academic Affairs. Competitive salary and excellent benefits package. Hire date is set for March 30, 1992. Screening of applicants will begin December 2, 1991. Position will remain open until suitable candidate is identified. Women and minorities are encouraged to apply. Send two copies of resume which includes names, addresses, and telephone numbers of three references and salary requirement to:



Search Committee Chair  
c/o Patricia Baucum  
University of Utah  
Personnel Administration  
101 Annex-pb-9922  
Salt Lake City, Utah 84112

*The University of Utah is an Equal Opportunity Employer*

# MAKE A DISCOVERY THAT MAKES AN IMPACT.

**A**t Becton Dickinson, people don't just make discoveries—they make a difference. That's because our research is changing the way health care services are delivered, from innovative rapid diagnostic tests to advanced polymers for medical devices. And our emphasis on individual achievement means your contributions to our success can have a significant effect on your own. Make an impact, at Becton Dickinson.

Our Medical Affairs Technical Services Department is adding 2 new positions to its Assay Development Group. This will allow them the additional capability to develop, validate and perform new biological and biochemical and human risk assessments more competitively.

## SCIENTIST

Responsible for the development of biochemical and cell culture based assays to evaluate the safety of medical device and *in vitro* diagnostics products and their component materials and to determine the mechanisms responsible for the toxicity of such products.

This position requires a Ph.D. in toxicology or in a biological, chemical, or biochemical field with at least 5 yrs. of experience in methods development of biochemical or cell culture based assays. Must have supervisory experience, fundamental skills in experimental design & statistical analysis, and *in vitro* toxicology and GLP Laboratory environment experience. Computer

experience, including the use of spreadsheets, word processing and databases, is highly desirable.

## RESEARCH ASSOCIATE

This position will be responsible as technical support in the development of biochemical and cell culture based assays to evaluate the safety of medical device and *in vitro* diagnostics products and their component materials.

Requirements include a BS in a biological, chemical, pharmacological or health science field with at least 3 years of experience in mammalian cell culture and biochemical assay/experimentation. Experience in experiment design, report writing, toxicology, good laboratory practice, and computer use, including spreadsheets, word processing and databases, is desired.

**A**t Becton Dickinson, we offer highly competitive salaries, comprehensive benefits, and the stimulation of working in North Carolina's celebrated Research Triangle Park. For immediate consideration, please send your resume to: **Human Resources, Becton Dickinson & Company Research Center, 21 Davis Drive, Research Triangle Park, NC 27709.** AA/EOE Employer.

# BECTON DICKINSON

T H E R E W A R D S O F D I S C O V E R Y

## POSTDOCTORAL FELLOWSHIPS at the University of Washington COLLEGE OF OCEAN AND FISHERY SCIENCES

Applications are requested from new or recent doctorates in science, engineering and from individuals with equivalent degree stature in related fields for fellowships to be awarded in the College.

The College consists of four units covering all aspects of marine science and marine policy. Fellowship holders will be appointed in one of the following departments:

**The School of Oceanography** carries out basic research in physical oceanography, marine chemistry, marine geology and geophysics, and biological oceanography.

**The School of Marine Affairs** focuses multidisciplinary research on marine policy issues arising from man's use of the oceans; relevant disciplinary training may be in any of the social or natural sciences or in law.

**The Applied Physics Laboratory** carries out research in physical oceanography, polar science, underwater acoustics, and a wide range of engineering disciplines.

**The School of Fisheries** specializes in fish and shellfish systematics and ecology, aquaculture, quantitative fishery management, environmental toxicology and food science.

Fellowships are awarded for one year, renewable for a second year, with an approximate stipend of \$30,312 and a modest research budget. Health insurance is also provided. A complete application consists of transcripts of the applicant's graduate record, a vita, letters of recommendation from three referees, a synopsis of the doctoral dissertation, and a 1-2 page statement outlining the research the applicant proposes to undertake at UW. Direct contact with faculty in the College is encouraged. All materials must be received by 3 January 1992. Awards will be announced in Spring 1992 (mid March). Fellowships are expected to be taken up before 1 September 1992.

Applications and any questions should be addressed to:  
**Search Committee, COFS Postdoctoral Program, Office of the Dean, HN-15, College of Ocean and Fishery Sciences, University of Washington, Seattle, WA 98195.**

*Equal Opportunity/Affirmative Action Institution*

## Meeting Announcement

The Department of Nutrition, University of North Carolina at Chapel Hill is sponsoring a conference on:

**Choline Phospholipids: Molecular Mechanisms for Human Diseases**

April 3rd and 4th, 1992  
Hotel del Coronado, San Diego, CA

### Cardiovascular Disease and Platelet Activating Factor

Richard W. Gross, M.D., Ph.D.; Washington University School of Medicine  
Stephen M. Prescott, M.D.; University of Utah  
John M. Johnston, Ph.D.; University of Texas Southwestern Medical School  
Eugene P. Kennedy, Ph.D.; Harvard Medical School

### Signal Transduction and Carcinogenesis

Steven Zeisel, M.D., Ph.D.; University of North Carolina at Chapel Hill  
I. Bernard Weinstein, M.D.; Columbia University College of Physicians and Surgeons  
Alfred H. Merrill, Jr., Ph.D.; Emory University School of Medicine  
John H. Exton, M.D., Ph.D.; Vanderbilt University  
Robert M. Bell, Ph.D.; Duke University Medical Center

### Strategies for Influencing Phospholipid-mediated Processes

Richard J. Wurtman, M.D.; Massachusetts Institute of Technology  
Dennis E. Vance, Ph.D.; University of Alberta School of Medicine  
Rosalind A. Coleman, M.D.; University of North Carolina at Chapel Hill  
Claudia Kent, Ph.D.; University of Michigan  
Jan K. Blusztajn, Ph.D.; Boston University School of Medicine

An approved satellite meeting of the American Institute of Nutrition, a constituent society of FASEB

Attendance will be by invitation only. Meeting will be limited to 100 attendees.

**Some travel grants will be available.**

Support for this conference has been provided by Central Soya.

Send an NIH-style curriculum vitae (or, for doctoral students, a letter from your advisor) to:

Steven H. Zeisel, M.D., Ph.D.  
Department of Nutrition  
University of North Carolina at Chapel Hill  
CB#7400, Chapel Hill, NC 27599-7400  
FAX # 919 966-7216

## POSITIONS OPEN

### NORTH CAROLINA STATE UNIVERSITY BIOMATHEMATICS GRADUATE PROGRAM DEPARTMENT OF STATISTICS

**ASSISTANT/ASSOCIATE PROFESSOR** of biomathematics (tenure track). Research strength expected in mathematical biology, either in mathematical theory or in applications. Duties include research, teaching, and graduate student direction. Special attention will be given to candidates whose appointment would increase the diversity of faculty research in the Biomathematics Program. The successful candidate will be expected to establish a significant, externally funded, research program. Letter of application, curriculum vitae (including transcript or list of graduate courses for recent graduates), and three letters of reference should be sent by 1 February 1992 to: **Faculty Search Committee, Biomathematics Graduate Program, North Carolina State University, Campus Box 8203, Raleigh, NC 27695-8203. Equal Opportunity Employer/Affirmative Action.**



### DEPARTMENT OF PHARMACOLOGY

Applications are invited for a tenure-leading faculty position in the Department of Pharmacology, with a preference for candidates at the **ASSOCIATE PROFESSOR** or advanced **ASSISTANT PROFESSOR** level. Individuals working at the cellular or molecular level with research interests which complement current departmental programs in neuroscience, toxicology, and cell biology are of particular interest. Outstanding applicants in all areas will be considered. Candidates should have a Ph.D. and/or M.D. degree and postdoctoral experience. Successful candidates will be expected to maintain an independent externally funded research program and to teach graduate, medical, and pharmacy students. Applications will be reviewed starting 15 January 1992. Applicants should submit curriculum vitae, a detailed description of research goals, and names of three references to: **Dr. David B. Bylund, Chairman, Department of Pharmacology, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-6260. The University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.**

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

The University of Tennessee, Memphis, Department of Physiology and Biophysics has two 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 name 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. The University of Tennessee is an Equal Employment Opportunity/Affirmative Action Title IX/Section 504/ADA Employer. Minorities and women are encouraged to apply.**

### ASSISTANT/ASSOCIATE PROFESSOR

Department of Cell Biology and Anatomy, University of Miami School of Medicine. Applications are invited for two tenure-track faculty positions from individuals whose research experience is in cell and molecular biology. Those working in the areas of cell surfaces and/or cell regulation in developmental biology or cancer biology are particularly encouraged to apply. A willingness to teach gross anatomy would be advantageous for one of the positions. Ample space, start-up funds and a competitive salary are available. Applicant should send curriculum vitae, brief summary of research interests and names of three persons willing to serve as references to: **Dr. Kermit Carraway, Chairman, Department of Cell Biology and Anatomy, University of Miami School of Medicine, P.O. Box 016960, Miami, FL 33101. An Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### MOLECULAR ONCOLOGY FACULTY POSITION

Louisiana State University Medical Center (LSUMC)-Shreveport is proud to announce the opening of the Center of Excellence in Cancer Research. Opportunities are available at the **ASSISTANT/ASSOCIATE PROFESSOR** level for individuals actively pursuing cancer research, especially in the areas of viral oncogenesis, growth factors, oncogenes, and signal transduction. Appointments will be jointly between the center and either the Department of Microbiology/Immunology or Biochemistry/Molecular Biology.

If interested, please send three letters of reference, a copy of your curriculum vitae and a brief description of research interests to:

**Jonathan Glass, M.D.**  
Professor of Medicine  
Director, Center for Excellence in Cancer Research  
LSU Medical Center-Shreveport  
P.O. Box 33932  
Shreveport, LA 71130-3932

### ASSISTANT OR ASSOCIATE PROFESSOR COLORADO STATE UNIVERSITY (CSU)

The Department of Biochemistry seeks applications for a tenure-track position from individuals working on the molecular regulation of eukaryotic gene expression at the level of transcription or mRNA utilization. The department occupies a new building containing modern laboratories and a full complement of core facilities. Candidates must have a Ph.D. degree, postdoctoral experience, and a demonstrated ability to develop an independent and productive research program. The successful applicant must effectively participate in undergraduate and graduate teaching of biochemistry or molecular biology. Send curriculum vitae, a statement of research interests and request three references by 31 December 1991 to: **Dr. N. P. Curthoys, Department of Biochemistry, Colorado State University, Fort Collins, CO 80523. CSU is an Equal Employment Opportunity/Affirmative Action Employer. Equal Opportunity office: 21 Spruce Hall.**

### FACULTY POSITION IN MICROBIOLOGY AND IMMUNOLOGY

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

### GRAYCE B. KERR CHAIR IN BIOCHEMISTRY

The Department of Chemistry and Biochemistry at the University of Oklahoma is seeking an outstanding individual to occupy the Grayce B. Kerr endowed chair at the **FULL OR ASSOCIATE PROFESSOR** level. Candidates must have an active, funded research program in biochemistry or structural biology, a strong record of research accomplishments, and a demonstrated commitment to teaching. *Minority and women candidates are strongly encouraged to apply.* Review of candidates will begin 15 December 1991, and will continue until an appointment is made. Applicants should submit complete curriculum vitae that includes a summary of research and teaching experience, and a description of ongoing and future research plans. Applicants should also have at least three letters of reference sent to: **Dr. Arthur E. Johnson, Chair, Search Committee, Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK 73019. The University of Oklahoma is an Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

**ASSOCIATE DIRECTOR OF RESEARCH.** UCLA-affiliated GRECC at Sepulveda Veterans Administration Medical Center (VAMC) is seeking M.D. or Ph.D. with investigative interests in aging using techniques of molecular biology. Applicants must qualify for rank of associate or full professor at UCLA. Excellent opportunity to establish a strong research team with additional funded positions, space, and resources. *Sepulveda VAMC is an Equal Opportunity/Affirmative Action Employer.* Send curriculum vitae and inquiries to **Dr. Edward J. Weinman, Chief, Medical Service (111), Sepulveda VAMC, 16111 Plummer Street, Sepulveda, CA 91343.**

### DEPUTY HEAD OF BIOLOGICALS

Experienced candidates (M.S., Ph.D. or equivalent) with demonstrated practical expertise in immunology and cell biology are invited to apply for the position as deputy head of our biologicals. Department located in Gaithersburg, Maryland. Sound experience of all aspects of monoclonal antibodies, immunoassay systems and serology are required and some experience in virology is desirable. This position offers a good starting salary and excellent prospects for promotion. Please send letter of application, curriculum vitae and the names and addresses of three referees to: **Box 12, SCIENCE Classified Advertising, 1333 H Street, NW, Room 940, Washington, DC 20005.**

**DIRECTOR HEMATOLOGY.** The University of Mississippi Medical Center is seeking candidates for Director of the Division of Hematology. Candidates should have a record of scholarly accomplishment in hematology, have successfully competed for peer-review research support and be qualified for the academic rank of **ASSOCIATE PROFESSOR OR PROFESSOR**. Qualified applicants should submit current curriculum vitae to: **Dr. Martin Steinberg, VA Medical Center, 1500 East Woodrow Wilson, Jackson, MS 39216. The University of Mississippi Medical Center is an Equal Opportunity Employer, M/F/H/V.**

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

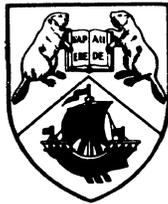
ES 401/1301  
\$87,000 TO \$95,300

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 is a component of the Office of Research and Development (ORD) and 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 the biological or physical sciences, 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: 202-260-3328

Applications must be postmarked by 1 December 1991. EPA is an Equal Opportunity Employer.



The Department of Biology, Fredericton Campus, seeks an established Academic with a strong research and administrative record to serve as Chair for a Department consisting of 18 professors, 8 instructors and a current complement of 64 graduate students and postdoctoral fellows. The Department also enjoys close research ties with Federal and Provincial Departments of Agriculture, Forestry, Fisheries and Natural Resources and is a member of the Huntsman Marine Science Centre at St. Andrews.

There are currently two vacancies and four more are expected within the next three years. Thus the successful candidate will have the opportunity to guide the development of the Department and add strength through these appointments. The field of research is open provided the candidate offers the required leadership qualities. Rank and salary are negotiable depending on the credentials of the candidate.

The appointment will begin on July 1, 1992 for a term of up to five years (renewable).

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

**THE UNIVERSITY OF NEW BRUNSWICK IS COMMITTED TO THE PRINCIPLE OF EMPLOYMENT EQUITY.**

All applications should be sent to:

Dr. I. Unger, Dean  
Faculty of Science  
University of New Brunswick  
P.O. Box 4400  
Fredericton, N.B.  
E3B 5A3

prior to January 31, 1992.

#### MOLECULAR GENETICS FACULTY POSITIONS

The Department of Molecular Genetics of The Ohio State University is initiating a search to fill two tenure track positions at the Assistant or Associate Professor level. We are particularly interested in applicants with research interests in molecular genetic studies of major topics in cell and developmental biology using experimental systems such as yeast, *Drosophila*, *Caenorhabditis*, *Mus*, and humans. However, highly qualified applicants with other research specialties within the broader area of molecular genetics will also be considered seriously. A highly competitive recruiting package is available, including an attractive (hard money) salary, generous laboratory space, substantial funds for equipment purchase and funds for initial operating expenses, independent of extramural grant support. The Ohio State University is in the process of a major expansion in Molecular Biology and Biotechnology, and a substantial number of additional positions are anticipated in the future. Women and members of minority groups are enthusiastically encouraged to apply.

The Ohio State University is the flagship institution of the state's higher education system. It is located in the state capital, Columbus, which is a growing, yet highly affordable, metropolitan area of about 1.3 million people. Columbus has been ranked by *Newsweek* as one of the country's best places to live and work.

Applications should include a detailed curriculum vitae, a description of research experience, a statement of the nature of the planned independent research program, and the name, address and telephone number of each of four scientists who have agreed to serve as references. Applications will be accepted until suitable candidates are hired but recruiting is scheduled to begin in earnest by December 1991. Information about our Department can be obtained by calling our offices at 614-292-8084.

Application materials should be sent to: **Dr. Alan M. Lambowitz, Molecular Genetics Search, Department of Molecular Genetics, The Ohio State University, 484 W. 12th Avenue, Columbus, Ohio 43210.**

*The Ohio State University is an Equal Opportunity/Affirmative Action Employer.*

U.S. DEPARTMENT OF ENERGY  
OFFICE OF HEALTH AND ENVIRONMENTAL RESEARCH



**Alexander Hollaender**

D I S T I N G U I S H E D

#### Postdoctoral Fellowship Program

Research Opportunities in Energy-Related Life, Biomedical, and Environmental Sciences

- Research in OHER-sponsored programs
- Tenable at various national laboratories
- Stipends \$37,500
- Doctoral degree received after April 1, 1990
- U.S. citizens or PRA eligible

Information and applications:



**Hollaender Postdoctoral Fellowships**  
Science/Engineering Education  
Oak Ridge Associated Universities  
P.O. Box 117  
Oak Ridge, TN 37831-0117  
(615) 576-4805

Deadline January 15 1992

**MRC**  
Medical Research Council

#### MEDICAL RESEARCH COUNCIL

Laboratory of Molecular Biology, Cambridge

#### TENURE TRACK POSITIONS IN NEUROBIOLOGY

Applications are invited from independent scientists to develop a programme of basic molecular research in the newly created Division of Neurobiology. Up to 5 posts will be available.

Among the topics of particular interest are biochemical and electrophysiological studies of neuroreceptors and ion channels, formation and differentiation of synaptic connections, and molecular mechanisms of memory and learning, but other areas will also be considered.

Successful applicants will be able to interact closely with staff in other Divisions of the Laboratory of Molecular Biology. Research in the Laboratory centres around a variety of topical and long term projects that explore the structures of proteins, nucleic acids, membranes and organelles, and are aimed at understanding cellular processes at the molecular level. An excellent range of cell culture and biochemical facilities, shared instrumentation and workshops is available.

Salary will be at an appropriate point on the MRC Non-Clinical Scientific scale (equivalent to the University Academic scale).

Further information can be obtained from Dr. Nigel Unwin (0223) 402410.

Applications, including CV, a brief description of research interests and the names and addresses of two professional referees should be sent as soon as possible, quoting reference TT/NU to:

The Personnel Officer, MRC Centre, Hills Road  
Cambridge, CB2 2QH UK

The Medical Research Council is an  
Equal Opportunity Employer.

## POSITIONS OPEN

### DEPARTMENT OF VETERANS AFFAIRS VETERANS HEALTH ADMINISTRATION

#### DIRECTOR MEDICAL RESEARCH SERVICE

The Department of Veterans Affairs invites applications for the position of Director, Medical Research Service. The Medical Research Service currently has a budget of about \$200 million and supports biomedical and behavioral sciences research of over 2500 VA scientists, 70 percent of whom are physicians. It is strongly committed to support of patient-oriented research across the entire spectrum from basic science to clinical applications of new knowledge. The director is responsible for policy development, peer review management of all investigator-initiated research studies and budget formulation and distribution. Candidates are expected to be nationally recognized scientists and they must have an established record of scholarly achievement. The position is only open to U.S. citizens who hold an M.D. degree and experience in VA research/administration desirable. Salary is \$83,032 with additional special pay up to \$45,868.

Qualified applicants are invited to send curriculum vitae, bibliography and the names, addresses and telephone numbers of three references by 1 December 1991 to: Dennis B. Smith, M.D., Associate Chief Medical Director for Research and Development (12), Department of Veterans Affairs, 810 Vermont Avenue, NW, Washington, DC 20420. Equal Opportunity Employer.

#### DIRECTOR OF THE SCHOOL OF RENEWABLE NATURAL RESOURCES COLLEGE OF AGRICULTURE, UNIVERSITY OF ARIZONA

The University of Arizona invites applications and nominations for the position of Director of the School of Renewable Natural Resources, College of Agriculture. The school maintains instruction, research, and cooperative extension programs involving landscape, range, watershed, and wildlife/fisheries resources. Total student enrollment is approximately 400.

Applicants should have an earned doctorate with credentials for appointment as a full professor, a distinguished scholarly career in natural resources, and proven leadership ability. Candidates should be familiar with western public land and water issues and the land grant philosophy.

The review of applications will begin 20 December 1991, and will continue until the position is filled. Send a letter of application with updated curriculum vitae listing the addresses and telephone numbers of three references to: Dr. Malcolm J. Zwolinski, Search Committee Co-Chair, School of Renewable Natural Resources, 325 Biological Sciences East Building, The University of Arizona, Tucson, AZ 85721. Women and minorities are encouraged to apply.

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

**DIRECTOR, SCHOOL OF CHEMISTRY AND BIOCHEMISTRY**, Georgia Institute of Technology. Georgia Institute of Technology invites nominations and applications for the position of Director of the School of Chemistry and Biochemistry. The school forms one of the strongest components in the College of Sciences at Georgia Tech, with an excellent, well-established program of research and teaching, both at the graduate and undergraduate levels. We are seeking a person with an outstanding record of scholarly and educational achievement to provide energetic leadership in chemistry, and in the development of interdisciplinary programs. The School of Chemistry and Biochemistry currently has 130 undergraduate chemistry majors in an A.C.S. accredited program, 125 graduate students and 20 other professional scientists and postdoctoral fellows. Our present faculty stands at 25, and we have a strong commitment to increase this number over the next several years. Evaluation of candidates for the position will begin 1 December 1991, but nominations and applications will be accepted until the position is filled. We hope to have the new director in position for the 1992 academic year. Applications, including complete curriculum vitae and names and addresses of four references should be sent to: Chair, Director Search Committee, School of Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta, GA 30332-0400.

Georgia Tech, a unit of the University System of Georgia, is an Equal Opportunity, Affirmative Action Employer.

## POSITIONS OPEN

### DIRECTOR CENTER FOR THE ANALYSIS OF ENVIRONMENTAL CHANGE (CAEC)

We are seeking an individual to provide leadership and administrative oversight for CAEC, a research center formed cooperatively by Oregon State University (OSU); the Pacific Northwest Experiment Station of the U.S. Forest Service; the Environmental Research Laboratory-Corvallis, U.S. Environmental Protection Agency; and Battelle, Pacific N.W. Laboratories. CAEC serves as the focal point for the development of long-term, multidisciplinary research programs pertaining to environmental change. The director works closely with associate directors from each of the participating institutions and reports administratively to the Dean of Research, OSU.

The director will be appointed to the OSU faculty at the rank of professor. He or she must be qualified for tenure in an appropriate department at OSU. The position is a 12-month appointment, 1.0 FTE, with a 9-month indefinite tenure commitment. Salary will be commensurate with experience and qualifications.

Applicants should submit a letter of interest and a résumé along with the names, addresses, telephone and FAX numbers of four references. References will be contacted only with the consent of the candidate. Closing date for nominations is 15 November 1991; closing date for applications is 1 December 1991. The position is available 1 February 1992.

Nominations and applications should be directed to:

Dr. Richard A. Scanlan  
Dean of Research  
AdS A312

Oregon State University  
Corvallis, OR 97331-2140  
Telephone: 503-737-0663

OSU is an Affirmative Action/Equal Employment Opportunity Employer and is responsive to dual-career needs.

The Department of Oral Medicine, Pathology, and Surgery at the University of Michigan School of Dentistry invites applications for a **TENURE-TRACK FACULTY APPOINTMENT** by life scientists with primary interests in bone growth and repair and the role of growth factors in these processes. Rank will be commensurate with credentials and experience. A Ph.D. degree or equivalent is necessary. Candidates should have documented experience in this area, will be expected to develop an independent research program and to collaborate with other investigators in the school. Applicants will be encouraged to obtain a joint appointment in the medical school. A negotiable start-up package is available. Rank and salary will be commensurate with qualifications and experience. The University of Michigan is an Equal Opportunity, Affirmative Action Employer. A letter of interest, curriculum vitae, and names of three references should be submitted by 1 December 1991 to:

Carl T. Hanks, D.D.S., Ph.D.  
Department of Oral Medicine,  
Pathology, and Surgery  
5223 School of Dentistry  
University of Michigan  
Ann Arbor, MI 48109-1078

#### CELL AND DEVELOPMENTAL BIOLOGY

The Department of Biological Sciences anticipates a junior or senior tenure-track **FACULTY POSITION** open in the area of cell or developmental biology. Applicants using *Drosophila* as a model system approaching basic cellular or developmental problems are especially encouraged to apply. The successful candidate will be expected to establish an extramurally funded research program, train graduate students, and participate in undergraduate education. For candidates at the senior level an established research program and an interest in directing further faculty recruitment is expected. Applicants should send curriculum vitae, a summary of research interests and goals, and arrange to have at least three letters of reference sent to:

Cell and Developmental Biology  
Search Committee  
Department of Biological Sciences  
University of Pittsburgh  
Pittsburgh, PA 15260

The University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer. Women and members of minorities are especially encouraged to apply.

## POSITIONS OPEN

### DATA MANAGER FOR THE GENOME DATA BASE

The Genome Data Base is a central repository for major human genome data except for bulk DNA sequences. This international data base is hosted at The Johns Hopkins University School of Medicine under joint support from the Department of Energy and the National Institutes of Health.

We seek an energetic and visionary scientist for the position of data manager who is excited by the idea of shaping the knowledge base serving the international Human Gene Mapping initiative. The Data Acquisition Validation and Maintenance Core of the GDB aims at supporting the human gene mapping community in the synthesis, integration, and editorial control of mapping information of all kinds. Specific data management responsibilities include participating in the definition of genetic markers as map objects, establishment of standards for data representation and nomenclature, and coordinating acquisition, validation and maintenance of the data.

Requirements: Advanced training in the biological or life sciences with experience in the development and management of complex human gene mapping data; strong interpersonal skills; keen and critical understanding of the issues surrounding data acquisition, validation, structuring, representation, and display.

Appointment: This is a faculty appointment within the School of Medicine. The level of appointment and salary will be commensurate with experience. Nominations are welcome. We wish to identify the successful candidate as soon as possible.

Mail or FAX a letter of nomination or an application with curriculum vitae by 1 January 1992 to:

Peter L. Pearson, Ph.D., Director  
Genome Data Base

The Johns Hopkins University  
1830 East Monument Street, Baltimore, MD 21205  
Internet: pearson@welch.jhu.edu  
Voice: 410-955-9705  
FAX: 401-955-0054

Equal Opportunity Employer, M/F/H/V.

#### BIOCHEMISTRY

The Department of Chemistry of the City College of New York invites applications for tenure-track **FACULTY POSITION** in biochemistry. A Ph.D. and at least 2 years of postdoctoral experience required. The candidate will be expected to pursue a vigorous externally funded research program in enzymology or protein chemistry utilizing physical techniques and/or the tools of molecular biology, and to teach on the undergraduate and graduate (doctoral and master's) levels.

Rank and salary will depend on training and experience and is negotiable. Send detailed curriculum vitae, which includes a description of proposed research and the names and addresses of three references, by 10 January 1992 to the Faculty Search Committee, Department of Chemistry, City College of New York, 138th Street and Convent Avenue, New York, NY 10031.

An Affirmative Action/Equal Opportunity Employer, M/F. We encourage applications from minorities and women.

#### PENNSYLVANIA STATE UNIVERSITY BIOLOGY DEPARTMENT LECTURER POSITIONS FALL 1992

We seek to hire a lecturer to teach (1) introductory biology and/or (2) anatomy and embryology at the University Park Campus. These are nontenure-track positions subject to yearly renewal. Positions can be full-time or part-time with joint research opportunities with our faculty. A doctorate in life science is required. Candidates should send curriculum vitae, a letter indicating teaching (and research) interests, and the names and telephone numbers of three references to: Professor L. Maxson, Head, Department of Biology, Box B1, 208 Mueller Laboratory, Penn State University, University Park, PA 16802. Applications will be reviewed beginning 15 December 1991, and continue until both positions are filled. An Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to apply.

## POSTDOCTORAL SCIENTIST

### DRUG METABOLISM AND PHARMACOKINETICS

SmithKline Beecham Pharmaceuticals, a worldwide leader in pharmaceutical research, is seeking a postdoctoral scientist to perform basic research in the area of drug interactions related to inhibition or induction of cytochrome P-450 dependent metabolism. The scientist will use *in vitro* and *in vivo* techniques to gain an understanding of the effects of specific therapeutic agents on cytochrome P-450 dependent metabolism and implications concerning the pharmacokinetics of other therapeutic agents. This position offers the opportunity to interact with senior members of the department to facilitate professional growth. The scientist will report research results within the company and at national scientific meetings and is encouraged to publish these results in leading scientific journals.

The successful candidate is required to have a Ph.D. degree in biochemistry, pharmacology, analytical chemistry, pharmaceuticals or related area. A working knowledge of bioanalytical techniques such as GC or HPLC and a demonstrated ability to apply multi-disciplinary techniques to hypothesis testing is also required. Practical experience in pharmacokinetic data analysis and *in vitro* metabolism is preferred.

Located in a state-of-the-art facility in suburban Philadelphia near Valley Forge, PA, we offer a challenging, stimulating environment in which to grow and excel. For confidential consideration, please forward your resume to Helene McConnell, H028, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V



**SmithKline Beecham**  
Pharmaceuticals

## FACULTY POSITION

### McMASTER UNIVERSITY INSTITUTE FOR MOLECULAR BIOLOGY AND BIOTECHNOLOGY

The newly-inaugurated Institute for Molecular Biology and Biotechnology is building a group composed of independent, but interactive scientists interested in the molecular biology of development. We seek candidates who are capable of applying molecular genetic techniques to study developmental processes in model eukaryotic organisms. Individuals studying the regulation of transcription, signal transduction, and the mechanism of action of oncoproteins or the products of tumor suppressor genes are especially encouraged to apply.

The successful candidate will be provided with operating and start-up funding from McMaster University and from a Terry Fox Team Development Grant awarded by the National Cancer Institute of Canada.

Applicants should send a current curriculum vitae, a statement describing their research accomplishments and future goals, and the names of three references to: Dr. John A. Hassell, Institute for Molecular Biology and Biotechnology, McMaster University, 1280 Main Street West, Hamilton, Ontario, Canada, L8S 4K1.

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

## UNIVERSITY OF OXFORD



In Association With  
Somerville College  
Or Lincoln College

### UNIVERSITY LECTURESHIP IN MOLECULAR BIOPHYSICS Laboratory of Molecular Biophysics Biochemistry Department

Applications are invited for the above post to start on 1st October 1992 (or as soon as possible thereafter). The lecturer will join a group active in structural studies on enzymes and viruses with well equipped X-ray, computational and biochemical facilities. Candidates should have expertise in the general area of structural molecular biology and preference will be given to those interested in developing a programme on multi-component systems using gene cloning, protein expression and X-ray diffraction. The lecturer will contribute to the teaching in Biochemistry and to the introduction of Biophysics into Physics. Stipend according to age on the scale £12,860-£25,343 per annum. The successful candidate may be offered a tutorial fellowship by Somerville College, the statutes of which provide that all fellows shall be women, or by Lincoln College, for which additional emoluments would be available.

Application (8 typed copies, 1 from overseas candidates) together with cv, list of publications, statement of research and the names of three referees should be sent by 25th November 1991 to Professor L.N. Johnson, Laboratory of Molecular Biophysics, Rex Richards Building, South Parks Road, Oxford OX1 3QU England from whom further particulars (containing details of the duties and the full range of emoluments and allowances attaching to both the University and college posts) may be obtained (Fax 0865-510454).

*The University is an Equal Opportunity Employer*



### POSTDOCTORAL FELLOW/ RESEARCH ASSOCIATE

Postdoctoral research positions are available immediately in the Department of Pharmacology, University of Colorado Health Sciences Center, Denver, Colorado. Areas of study include: 1) CNS signal transduction mechanisms (G protein structure and function) with Dr. Boris Tabakoff and 2) the neuropeptide vasopressin: its mechanism of CNS action and the regulation of its synthesis, with Dr. Paula Hoffman. These investigations will focus on the role of G proteins and vasopressin in addition to alcohol and other drugs, and require expertise in biochemical and molecular biological methodology. The techniques used include enzyme assays, mRNA isolation and quantitation, *in situ* hybridization, receptor binding and autoradiography and behavioral pharmacology. Candidates with 1 or more years of postdoctoral training are encouraged to apply, but newly-graduated individuals with molecular biological expertise will also be considered. Salary is commensurate with training and experience. Send curriculum vitae and three letters of recommendation to: Dr. Paula Hoffman, Department of Pharmacology C236, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Denver, CO 80262. *The University of Colorado is an Equal Opportunity/Affirmative Action Employer.*

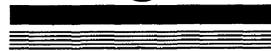
## Geisinger Clinic

### ASSOCIATE SCIENTIST POSITION

Position available for Associate Scientist (minimum three years' postdoctoral experience) or postdoctoral fellow. Research will focus on characterization of signal transduction pathways in cells responsible for regulating biological responses to mechanical deformation. Specific emphasis will be placed on mechanisms which regulate generation of second messengers by phospholipases. Experience in nucleic acid molecular biology and cell biology preferred.

Competitive salary and fringe benefits are available. Please send CV and three names or letters of reference to: Dr. Peter A. Watson, Weis Center for Research, Geisinger Clinic, North Academy Avenue, Danville, PA 17822-2615. Equal Opportunity Employer M/F/H/V.

**Geisinger**



## POSITIONS OPEN

### FACULTY POSITION BIOCHEMIST

The Departments of Chemistry and Biology of the University of St. Thomas jointly invite applications for a full-time, tenure-track position in biochemistry. The rank of the position is open and salary will be commensurate with the successful candidate's experience. The position commences 1 September 1992. Responsibilities will include teaching courses in biochemistry, laboratories in organic chemistry and, if necessary, involvement in the general chemistry program. The successful candidate should also have a strong enough background in organic chemistry to be able to teach organic lectures as the occasion demands. The development and implementation of a biochemistry laboratory course as well as the establishment of a vigorous research program involving undergraduate students are expected. Postdoctoral research experience will be considered advantageous to the establishment of a research program. A Ph.D. in biochemistry is required as well as a strong commitment to teaching at the undergraduate level in a liberal arts context. St. Thomas is a coeducational, Catholic liberal arts college committed to the total development of the individual student. Send letter of application, brief statements of teaching philosophy and research plans, curriculum vitae, and arrange to have three letters of reference sent directly to: Ms. Penny Pease, Science Division Office Coordinator, Mail #4050, University of St. Thomas, 2115 Summit Avenue, St. Paul, MN 55105-1096. All materials must be received by 1 December 1991. *The University of St. Thomas is an Equal Opportunity/Affirmative Action Employer.*

### BIOTECHNOLOGY FACULTY

Tenure-track position available in biology beginning August 1992 to develop an undergraduate program in biotechnology. A Ph.D. in biotechnology or related field and a background in recombinant DNA techniques (including vector and host transformation, genomic library preparation, PCR technology, and DNA sequencing) is preferred. In addition to teaching, initial responsibilities will include program development and student recruitment. Supervision of undergraduate experience is strongly encouraged. Review of applications will begin on 1 February and continue until the position is filled. St. Ambrose is a medium-sized, Catholic university with four full-time faculty in biology and three in chemistry. Send curriculum vitae, graduate transcripts and three letters of recommendation to: Director of Personnel, St. Ambrose University, 518 West Locust Street, Davenport, IA 52803.

*Women and minorities are encouraged to apply and identify themselves. Affirmative Action/Equal Employment Opportunity.*

**COGNITIVE NEUROSCIENCE.** The Department of Psychology at Carnegie Mellon University invites applications from cognitive neuroscientists for a FACULTY POSITION preferably at, but not necessarily limited to, the junior level. Cognitive neuroscience at Carnegie Mellon is characterized by attempts to arrive at cognitive theories derived from consideration of the computational properties of neural circuitry, from patterns of damage following brain injury, and from the postnatal development of the brain. A variety of different techniques ranging from connectionist modeling to animal studies are currently utilized. In the near future opportunities for PET scanning will also become available. This hiring is part of a plan to make cognitive neuroscience an independent "track" within the department. Please send curriculum vitae, statement of research interests, representative papers, and three letters of recommendation to: Cognitive Neuroscience Search Committee, Department of Psychology, Carnegie Mellon University, Pittsburgh, PA 15213-3890. Application deadline: 1 February 1992. *Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** in neuroimmunology/neuro-oncology in the Division of Neurology, Harvard Medical School, beginning December 1992. A multidisciplinary approach is used to understand and manipulate the immune response to neural antigens. Projects in basic neuroimmunology, brain tumor immunology, autoimmunity and ALS. Send résumé, with reprints and names of references, to: Dr. Lois Lampson, Division of Neurology, LMRC 116, Brigham and Women's Hospital, Boston, MA 02115.

## POSITIONS OPEN

### FACULTY POSITIONS: BIOCHEMISTRY UNIVERSITY OF ALABAMA AT BIRMINGHAM

Tenure-track faculty positions are available for candidates interested in developing strong and independent research programs with long-term growth potential. All areas will be considered. The Department of Biochemistry has excellent facilities and will be undergoing substantial expansion. Teaching includes medical, dental, and graduate students within a sizable medical complex. Salary is commensurate with experience.

Curriculum vitae, brief statement of present and future research interests, and three letters of recommendation should be sent to: Dr. Stephen C. Harvey, Department of Biochemistry, The University of Alabama at Birmingham, Birmingham, AL 35294.

*An Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION IN PHARMACOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

Applications are invited for a tenured or tenure-track position in pharmacology. Qualifications include an outstanding record of research accomplishment with experience in molecular biological approaches to problems in pharmacology or related areas, a commitment to teaching, and a Ph.D. (or M.D., or both) in pharmacology or related field. Level of appointment and salary will be commensurate with achievement and experience. Curriculum vitae, references, and a summary of research interests should be sent by 1 December 1991 to: Dr. Larry Stein, Chairman, Department of Pharmacology, College of Medicine, University of California, Irvine, CA 92717. *An Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL APPOINTEE.** Institute of Gas Technology (IGT), a leading energy and environmental R&D organization, has an immediate opening in our Biotechnology and Environmental Research area for a Ph.D. in microbiology, biochemistry, organic chemistry or agronomy. Actual research experience in microbiology, organic chemistry of oxidative reaction, bioremediation, and analytical chemistry of environmental samples required. Knowledge of EPA QA/QC protocols a plus. Will be responsible for conducting task-related research for an ongoing EPA project, analyzing and reporting results, and suggesting future experiments. Must have excellent work habits, good oral and written communication skills, and be a self-starter who is able to work with minimal supervision. IGT offers a professional environment, excellent benefits, and competitive salary. For confidential consideration, please send résumé with salary requirement to: Personnel Department, BK-1, Institute of Gas Technology, 3424 South State Street, Chicago, IL 60616. *Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS

The Department of Microbiology and Immunology at The Pennsylvania State University College of Medicine in Hershey invites applications from qualified individuals for postdoctoral positions. Departmental research programs include (1) immunology: molecular aspects of the MHC complex, antigen processing, and cellular immunology; (2) molecular and cellular biology: regulation of cell growth and gene expression, oncogenes, and mechanisms of neoplastic transformation; and (3) virology: molecular studies of virus replication, assembly, pathogenesis, latency and gene regulation using adeno, herpes, papilloma, papova and retroviruses. Applicants should send curriculum vitae, a brief description of research experience and interests, and names and addresses of three references to: Dr. Richard J. Courtney, Chairman, Department of Microbiology and Immunology, The Pennsylvania State University College of Medicine, Post Office Box 850, Department 22, Hershey, PA 17033. *The Pennsylvania State University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

**POSTDOCTORAL POSITION IN MOLECULAR PARASITOLOGY.** NIH-funded fellowship, restricted to U.S. citizens or permanent residents, available for a molecular biologist to study the genomic organization, expression and products of stage-specific malaria genes required for mosquito transmission. Starting date, no later than 1 December 1991. Send curriculum vitae and letters of recommendation to: Dr. Ruth Nussenzweig, Department of Medical and Molecular Parasitology, New York University Medical School, 341 East 25th Street, New York, NY 10010. FAX: 212-263-8116.

**POSTDOCTORAL POSITION** to join a research group working on dopamine and serotonin receptors. The particular interests of the group include work on the new members of this receptor superfamily we have identified [see *Nature* 347, 80 (1990) and *Nature* 350, 614 (1991)]. Ideally, applicants should have a Ph.D. and experience in molecular biology. An application including curriculum vitae, names and references can be sent to: Dr. Brian F. O'Dowd or Dr. Susan George, Department of Pharmacology, University of Toronto, Ontario M5S 1A8 Canada.

### POSTDOCTORAL POSITION

Available immediately to study the molecular and cell biology of human placental Fc receptors and their role in the transport of IgG across the placenta. A second focus of this NIH-funded project is to examine the role of these receptors in HIV-1 infection of the fetus. Send curriculum vitae and references to: Dr. Daniel D. Sedmak, Department of Pathology, 139 Hamilton Hall, 1645 Neil Avenue, The Ohio State University, Columbus, OH 43210.

*The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam era veterans, and disabled candidates are encouraged to apply.*

**POSTDOCTORAL POSITION.** Available January 1992 for research on structure/regulation of an ammonium inducible promoter of a nuclear gene encoding two chloroplastic glutamate dehydrogenases and transformation of *Chlorella* cells by foreign genes under control of this promoter. Molecular biology experience required. Contact: Dr. Robert R. Schmidt, Department of Microbiology and Cell Science, 3103 McCarty Hall, University of Florida, Gainesville, FL 32611. Telephone: 904-392-0237.

**POSTDOCTORAL POSITION** available in multidisciplinary research group interested in neuron-glia interactions, to study ion-channel expression in glial cells. Project entails patch-clamp recordings, fura-2 measurements and confocal microscopy. Excellent facilities and superb opportunities for interaction with a multidisciplinary research group. Experience in electrophysiological techniques, microscopy and cell culture are desirable. Send curriculum vitae and three letters of reference by 30 December 1991 to: Harald Sontheimer, Ph.D., or Bruce Ransom, M.D., Ph.D., Department of Neurology, Yale University School of Medicine, 333 Cedar Street, LCI 704, New Haven, CT 06510.

*Equal Opportunity/Affirmative Action Employer.*

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## POST DOCTORAL FELLOWSHIPS

The University of Missouri-Kansas City (UMKC), the University of Kansas (KU) and Marion Merrell Dow Foundation have established a *Scientific Education Partnership* dedicated to developing a regional center of excellence in modern biological and biomedical research related to diseases and treatment of the aging population.

A key element of the Partnership continues to be the awarding of Post Doctoral Fellowships in the following areas of basic research:

- Molecular immunobiology
- Protein structure and function
- Neuroscience
- Molecular genetics
- Molecular pharmacology
- Developmental molecular biology

Research activities may be conducted in the laboratories of university mentors at either UMKC or KU.

Appointments will be for 2 years at a stipend of \$30,000 (year 1) and \$35,000 (year 2).

For further information, individuals with background and interest in these areas of basic science should write or fax (816-966-4400):

Anthony J. Hancock, PhD  
Director, Scientific Partnerships  
Marion Merrell Dow Inc.  
P.O. Box 8480  
Kansas City, MO 64114-0480

*Inquiry for information should be received no later than December 20, 1991.  
Deadline for completion of application is February 1, 1992.*

MARION MERRELL DOW FOUNDATION  
THE UNIVERSITY OF KANSAS  
UNIVERSITY OF MISSOURI-KANSAS CITY

## RESEARCH TOXICOLOGIST

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

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

Upjohn offers a competitive compensation and benefits package in addition to a stimulating, multi-disciplinary research environment at our modern laboratories in Kalamazoo, Michigan. You are invited to send your curriculum vitae to: The Upjohn Company, Corporate Recruiting, 7000 Portage Road, Kalamazoo, MI, 49001-0199. Refer to Position Number 910782-086 in your cover letter. An Equal Opportunity Employer M/F.

OUR COMMITMENT TO SCIENTIFIC EXCELLENCE CONTINUES...

# Upjohn



The Ohio State University Postdoctoral Fellowships beginning July 1, 1992, are available in all academic fields. Appointment is for one year (12 months) with a stipend of \$23,000. A one-time reimbursable supplement of up to \$500 is provided to assist with moving expenses to Columbus. In addition, a one-time \$500 allowance is available to help defray travel costs for professional meetings.

Only those Postdoctoral fellowship applications sponsored by a graduate faculty member of The Ohio State University will be considered by the Graduate School. The deadline for submittal of completed applications by a faculty member is **January 6, 1992**. Prospective applicants are advised to make early contact with an Ohio State faculty member.

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

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

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

An Affirmative Action/  
Equal Opportunity Employer

### RESEARCH SCIENTISTS RESEARCH INSTITUTE OF THE WESTERN PENNSYLVANIA HEALTHCARE SYSTEM, INC. PITTSBURGH, PENNSYLVANIA

Applications are being invited for research staff positions in a private, multi-disciplinary research institution at levels equivalent to either an Assistant or Associate Professor. The recently established institute is housed in a state-of-the-art 31,000-square-foot facility within walking distance to The Western Pennsylvania Hospital. Areas of clinical excellence and associated research programs include medical genetics, oncology and cardiovascular disease. Candidates must have expertise in the areas indicated, an independent research program and current, peer-reviewed funding. The West Penn Research Institute is supported in part by The West Penn Hospital Foundation. The institute provides competitive salaries and benefits, start-up funds and the potential for affiliations with other area medical centers and academic institutions. The institute provides an atmosphere for established scientists to pursue both basic and clinical research. Interested applicants should send their curriculum vitae, the names of three references and a brief statement of research interest to:

Gary B. Schneider, Ph.D.  
Director,  
Research Institute of  
The Western Pennsylvania  
Healthcare System, Inc.  
4800 Friendship Avenue  
Pittsburgh, PA 15224

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available for an individual interested in studying mechanisms of liver regeneration and hepatocyte-specific gene expression. In particular, RNA sequences which confer mRNA stability, as well as trans-acting factors which bind to these regions, will be studied. Molecular biology experience and an M.D. or Ph.D. is required. Please send curriculum vitae and names of three references to: **Katherine Parker Ponder (nee Katherine A. Parker)**, Department of Molecular Biophysics and Biochemistry, Washington University School of Medicine, Box 8231, 660 South Euclid, St. Louis, MO 63110.

**POSTDOCTORAL POSITION.** Available to study the interaction of human immunodeficiency virus with the complement system and the effects of this interaction on pathogenesis. Both in vitro and in vivo aspects of the problem can be addressed. Send curriculum vitae and three references by 1 December 1991 to: **Dr. G. T. Spear**, Department of Immunology/Microbiology, Rush Medical School, 1653 West Congress Parkway, Chicago, IL 60612.

*An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available to study intracellular signaling in B lymphocytes, focusing on relationships between the activity of protein kinases, the function of sequence-specific DNA binding proteins (NF-KB, Jun/Fos, CREB), and the expression of immediate-early growth response genes. Background in biochemistry or molecular biology preferred. Send curriculum vitae and the names of three references to: **Thomas L. Rothstein, M.D., Ph.D., Room E-501, University Hospital, 75 East Newton Street, Boston, MA 02118.** Telephone: 617-638-7002; FAX: 617-638-7065. *An Equal Opportunity Employer.*

**POSTDOCTORAL POSITION.** Plant molecular biology/bacteriology. Available January 1992. The successful applicant will characterize, at the molecular level, the resistance response induced on bean by incompatible *Pseudomonas syringae* pathogens. This project will involve isolation and characterization of plant genes specifically expressed during a hypersensitive response. Applicants must have a Ph.D. in plant pathology, molecular biology, genetics or related field. This position is available for 18 months with the possibility of renewal. Salary is \$25,000 with additional benefits. Applicants should submit a statement of professional and research goals, curriculum vitae, and three letters of recommendation to: **Peter B. Lindgren**, Department of Plant Pathology, North Carolina State University, Raleigh, NC 27695-7616. *An Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORALS.** (1) Design, synthesis, testing, and conformational analysis of heparin binding peptides and heparin binding peptide-domains of specific proteins. Requires experience in peptide synthesis and purification, and (2) Immuno- and peptide chemistry of pro-peptide hormone proteins. Requires experience in cell culture, fractionation, and immunocytochemical methods. Send curriculum vitae and names of three references to: **Dr. Robert B. Harris**, Virginia Commonwealth University, Department of Biochemistry, Box 614, Richmond, VA 23298-0614. *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available in research program investigating the immunotherapy and chemotherapy of *Mycobacterium tuberculosis* and *Mycobacterium avium* infections in mouse models. Recent Ph.D. in immunology preferred. Send curriculum vitae and names of three references to: **Dr. Ian Orme**, Department of Microbiology, Colorado State University, Fort Collins, CO 80523. *Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITIONS** for recent Ph.D.'s to participate in an active research program on the structure, regulation and expression of human DNA repair genes and enzymes. Current research efforts focus on the molecular defects which underlie cancer-prone human genetic disorders and structural analysis of multifunctional repair enzymes by site-specific mutagenesis. Submit curriculum vitae and the names of three references to: **Dr. Michael A. Sirover**, Fels Institute for Cancer Research and Molecular Biology, Temple University School of Medicine, 3420 North Broad Street, Philadelphia, PA 19140. *Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION** to investigate the molecular biology of lymphokine receptors and their associated signal transduction mechanisms in human hematopoietic cells. Ph.D. in biochemistry or molecular and cellular biology required. Experience with cDNA libraries, cDNA cloning, and the regulation of gene expression. The research program is NIH funded and the laboratory provides excellent core technology support. Attractive employee benefits and working conditions. Send curriculum vitae and the names of three references to: **R. Allan Mufson, Ph.D., Cell Biology Laboratory, American Red Cross, 15601 Crabbs Branch Way, Rockville, MD 20855.** *Equal Opportunity Employer, M/F/V/H.*

## POSTDOCTORAL POSITIONS

Postdoctoral openings are available in the Department of Molecular Biology and Biochemistry at the University of California, Irvine. These positions are for 1 or 2 years under the sponsorship of the following faculty members: D. Aswad: biochemistry of neural functions. B. K. Burgess: biochemistry and genetics of nitrogen fixation. M. G. Cumsy: mitochondrial biogenesis, mitochondrial protein import and gene expression in yeast. R. Davis: biochemical genetics of *Neurospora*. H. Y. Fan: animal virology nucleic acid studies in murine leukemia viruses. C. Glabe: developmental biology, cell-cell interactions. G. A. Granger: cell and molecular mechanisms operative in cellular immunity. B. A. Hamkalo: eukaryotic chromosome structure and function. A. Henschen: structure-function relationships in proteins. A. A. James: molecular biology of insect vectors of infectious diseases. J. E. Manning: gene sequence organization in eukaryote DNA, electron microscopy. R. Miledi: neurotransmitter receptors and synaptic functions. M. B. O'Connor: molecular genetics of development. D. F. Sencar: regulatory energetics and protein-DNA assemblies. T. Osborne: molecular biology of transcriptional regulator proteins. W. M. Stanley, Jr.: protein biosynthesis in eukaryotic cells. K. K. Tewari: nucleic acids of chloroplasts and other organelles. S. Tewari: neuro-molecular biology and CNS acting drugs. L. P. Villarreal: molecular biology of small DNA viruses. E. K. Wagner: nucleic acids and molecular biology of herpesvirus replication. C. A. Woolfolk: general microbiology, enzymology. For further information contact or write to: **The Department of Molecular Biology and Biochemistry, University of California, Irvine, CA 92717.** *The Department of Molecular Biology and Biochemistry encourages female and minority applicants to apply. The University of California is an Equal Opportunity/Affirmative Action Employer.*

## POSTDOCTORAL POSITION IN MOLECULAR GENETICS

For isolation, characterization, and experimental testing of genomic regions found to cause mosaic expression of inserted genes in our transgenic mice, and analyses of roles of these regions in development and malignancy. Strong background in molecular biology/molecular genetics required. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Beatrice Mintz**, Institute for Cancer Research, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111.

**POSTDOCTORAL POSITION.** Available immediately to examine cellular mechanisms of metal transport and toxicity (with Dr. Thomas W. Clarkson) and the role of glutathione in these processes (with Dr. N. Ballatori). Experience in cell culture techniques, and membrane and protein isolation desirable. Send curriculum vitae and names of three references to either: **Dr. Thomas W. Clarkson** or **Dr. Ned Ballatori**, Environmental Health Sciences Center, Department of Biophysics, University of Rochester School of Medicine, Rochester, NY 14642.

*The University of Rochester is an Equal Opportunity Employer. Minority candidates are encouraged to apply.*

**POSTDOCTORAL POSITION IN PLANT BIOCHEMISTRY.** Available immediately. Two-year USDA competitive grant position. Isolation and characterization of ethylene binding components in plants. Experience in protein biochemistry desirable. Salary: \$25,000 per year. Contact: **Dr. Edward C. Sisler**, Department of Biochemistry, North Carolina State University, NCSU Box 7622, Raleigh, NC 27695-7622. Telephone: 919-515-5761. FAX: 919-515-2047.

## POSITIONS OPEN

**POSTDOCTORAL FELLOWSHIPS** in molecular genetics and molecular oncogenesis. Several positions open for recent M.D.s or Ph.D.s with experience in molecular biology to pursue structural and regulatory properties of human minisatellites, as well as gene search strategies. Interested candidates should send curriculum vitae and three letters of reference to: **T. Krontiris, Box 245, New England Medical Center Hospitals, 750 Washington Street, Boston, MA 02111.**

## POSTDOCTORAL FELLOW MOLECULAR TOXICOLOGY HARVARD

Postdoctoral position available immediately to study genetic responses to environmental stress in *E. coli*. Molecular biology and microbiology skills required. Position interfaces with biotechnology company and offers an attractive salary.

Send curriculum vitae and three letters of recommendation to: **Dr. Spencer Farr**, Department of Molecular and Cellular Toxicology, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115.

## RESEARCH SCIENTIST I/ POSTDOCTORAL FELLOW

Research scientist I/postdoctoral fellow must have knowledge (Ph.D.) and training in immunology and/or biochemistry. Project concerns immunologic consequences of taurine deficiency in cats. One year minimum. Salary: \$32,198. Send résumé to: **Personnel, New York State Institute for Basic Research in Developmental Disabilities, 1050 Forest Hill Road, Staten Island, NY 10314.** Reference 679A.

## POSTDOCTORAL FELLOW MOLECULAR IMMUNOLOGY AND TYPE I DIABETES

To study autoimmune pathogenic mechanisms of insulin-dependent diabetes mellitus (identification, isolation and characterization of beta cell-specific autoantigen using molecular biological techniques); to develop methods for prevention using molecular immunologic methods. Ph.D. or M.D. and experience in basic molecular biological techniques required. Excellent research environment and attractive salary and benefits package available. Send curriculum vitae and names of three references to: **Dr. Ji-Won Yoon, Julia McFarlane Diabetes Research Centre, The University of Calgary, 3330 Hospital Drive, N.W., Calgary, AB, Canada T2N 4N1.**

**POSTDOCTORAL FELLOW.** A position is available immediately to study the regulation of eukaryotic gene expression of steroid hormones. Potential projects include gene transfer, analysis of DNA-protein interactions, and cell-free transcription experiments to delineate the molecular mechanisms by which androgenic steroids regulate male sexual differentiation. Applicants *must be U.S. citizens* and have a Ph.D. or M.D. degree with experience in techniques of molecular biology and protein purification. Send curriculum vitae with names and addresses of three references to: **Dr. James F. Catterall**, Center for Biomedical Research, The Population Council, 1230 York Avenue, New York, NY 10021.

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

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

**NEUROSCIENCE CENTER OF EXCELLENCE  
LOUISIANA STATE UNIVERSITY MEDICAL CENTER  
SCHOOL OF MEDICINE, NEW ORLEANS**

**Clinical Neuroscientists  
To lead Clinical-Research Efforts in  
\*Stroke and Cerebrovascular Diseases  
\*Alzheimer's Disease and Other Age Related  
Dementias**

The Neuroscience Center of Excellence jointly with clinical Departments (eg. Neurology, Psychiatry) invite clinical neuroscientists to apply for faculty appointment at a rank commensurate with qualifications. The Center is developing a comprehensive effort in the neurosciences bringing together clinical neurosciences, clinical research, fundamental research, postgraduate medical education, graduate studies (a Ph.D. program in Neuroscience will begin in 1992), postdoctoral training and service.

The search currently is under way for two clinical neuroscientists that will lead a clinical research effort in stroke and cerebrovascular diseases and in Alzheimer's Disease and other aging related dementias. The appointments can be made anytime. Salaries are highly competitive. Adequate space, excellent and expanding infrastructure (eg. core laboratories), and start up funds are available. Teaching activities will be limited and will include the new graduate program in the neurosciences. We are seeking outstanding candidates. Application should include a curriculum vitae, up to ten reprints of the past five years, statement of current and future research (4-5 pages) and name and address of three references.

Applications should be received no later than December 15, 1991.

Send to:

Nicolas G. Bazan, M.D., Ph.D.  
Co-Chair of Search Committee  
Director, Neuroscience Ctr. of  
Excellence  
Professor of Ophthalmology  
and Neurology  
LSU Eye Center  
2020 Gravier Street, Suite "B"  
New Orleans, LA 70112

or Austin J. Sumner, M.D.  
Co-Chair of Search Committee  
Professor and Head of Neurology  
LSU School of Medicine  
1542 Tulane Avenue  
New Orleans, LA 70112

**THE CHINESE UNIVERSITY OF HONG KONG**

Applications are invited for

*Senior Lecturership in the Department of Anatomy*

The Department is responsible for anatomical teaching and offers courses to medical students in topographical anatomy, neuroanatomy, histology, embryology and genetics. Anatomy courses are also offered to undergraduate students in Nursing and Pharmacy.

Applicants should have a doctorate in an appropriate subject or a medical qualification and should normally have not less than 5 years of teaching experience in one or more of the above subject areas. The Department has excellent funding and offers first class research facilities which include electron microscopy and tissue culture. Active research programmes in neurobiology, tumor biology and cell differentiation are in progress and collaborative programmes with other basic medical science and clinical departments are well established. The appointees are expected to assume duty in August, 1992 or as soon as possible thereafter.

*Annual Salary*

HK\$480,360-645,300 by 8 increments  
(approx. exchange rate: US\$1=HK\$7.8)

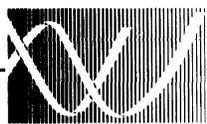
(Starting salary will depend on qualifications and experience.)

*Conditions of Service*

The University offers a competitive remuneration package. For superannuable appointment, benefits include leave with full-pay, contributory superannuation scheme (University 15%, appointee 5%), medical and dental care, education allowances for children, housing benefit (with appointee contributing 7.5% of salary towards the provision of housing). Appointment may also be made on fixed term contract which carries equivalent benefits including a contract-end gratuity (15% of basic salary) in lieu of superannuable benefits. The University may also consider more flexible terms for suitable candidates.

*Application Procedure*

Send full resume in duplicate, giving full particulars as well as names and addresses of 3 referees, together with copies of qualification documents (in duplicate) and recent publications to the Personnel Section, the Chinese University of Hong Kong, Shatin, Hong Kong before November 30, 1991. Please quote the reference number 72/509/2/91 and mark "Recruitment" on cover.



CENTER FOR  
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AND  
MEDICINE

**POST-DOCTORAL RESEARCH FELLOW**  
**Transcriptional Regulation by the**  
**Viral and Cellular *rel* Oncogenes**

Highly motivated postdoctoral researcher sought to study the function of the viral and cellular *rel* oncogenes in lymphoid cell growth, differentiation and transformation. Specific areas of interest include:

- (i) Functional analysis of the *v-* and *c-rel* oncoproteins
- (ii) Regulation of *v-* and *c-rel* function
- (iii) Regulation of gene expression by *rel*-family proteins

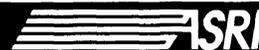
The CABM is a newly established molecular biology research institute with state-of-the-art facilities available. Interested candidates should send CV and arrange to have three letters of reference sent to:

**Dr. Céline Gélinas**  
**CABM**  
**679 Hoes Lane**  
**Piscataway, NJ 08854-5638**

An Affirmative Action/Equal Employment Opportunity Employer, M/F/H/V.  
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New Jersey and Rutgers, The State University of New Jersey

**CHIEF**  
**DIVISION OF**  
**VASCULAR MEDICINE**  
**AND BIOLOGY**

The newly established Cardiovascular and Pulmonary Research Center of the Allegheny-Singer Research Institute, the research organization for Allegheny General Hospital in Pittsburgh and The Medical College of Pennsylvania, seeks a mature, established investigator with an MD-Ph.D. or MD-Ph.D. equivalent research training and background. Candidates applying for this position must be U.S. citizens and have demonstrated clinical, basic research, teaching and administrative skills. Clinical service will be limited to 25% effort. The position carries an academic appointment. A large laboratory (1200-1500 sq. ft.) will be customized to the appointee's needs. Two post-doctoral fellows and two technician positions will be available. Salary will be commensurate with previous experience and academic position and will exceed current AAMC and Federal mean levels. To apply, send letter of intent and curriculum vitae to **Richard E. Clark, MD, Director, Cardiovascular and Pulmonary Research Center, ALLEGHENY-SINGER RESEARCH INSTITUTE, 320 E. North Avenue, Pittsburgh, PA 15212, (412) 359-6117.** An Equal Opportunity Employer.

  
**ALLEGHENY-SINGER  
RESEARCH INSTITUTE**

## POSITIONS OPEN

### POSTDOCTORAL FELLOW

Position to study electrophysiological properties of human retinoblastoma cells. Focus is on changing expression of voltage- and ligand-gated channels during differentiation. Patch-clamp and cell culture experience desired. Send curriculum vitae and references to: **Drs. L. W. Haynes and S. Barnes, Medical Physiology, The University of Calgary, 3330 Hospital Drive, N.W., Calgary, AB, Canada T2N 4N1.**

**LIFE SCIENCES POSTDOCTORAL FELLOW-SHIP.** Arizona State University (ASU) West invites applications for a postdoctoral fellowship in snake ecology, evolution and behavior research, and teaching (one course per year). Ph.D. in life sciences to be completed by August 1992 and a research-focus on behavioral biology of snakes or other reptiles. Scholarly productivity, laboratory and field experience, interest in socioecology and mating systems, and evidence of independent, yet cooperative, scholarship desired. Position available 2 January through 30 June 1992, with possibility of renewal for up to an additional 18 months. Send letter of application, curriculum vitae, three letters of reference, and reprints/preprints by 25 November 1991 to: **Dr. David Duvall, Life Sciences Program, ASU West, P.O. Box 37100, Phoenix, AZ 85069-7100.** ASU West is an Affirmative Action/Equal Opportunity Employer.

### MOLECULAR NEUROBIOLOGY POSITIONS FOR SENIOR, STAFF AND FOREIGN FELLOWS NATIONAL INSTITUTE FOR DRUG ABUSE (NIDA)

The Laboratory of Molecular Neurobiology, NIDA/Addiction Research Center wishes to enhance efforts in: (1) Cloning drug and neurotransmitter receptors with special emphasis on transporter genes, (2) characterizing expression of these genes in transgenic mice, (3) understanding mechanisms of neurotransmitter gene regulation in cell culture and brain, and (4) RFLP association and linkage studies in human population. Salary and benefits are competitive. Applicants with expertise and interests in molecular biology, molecular genetics, molecular neurobiology, *Xenopus* expression systems, biochemical and genetic characterization in transgenic animals are encouraged to apply to:

**George R. Uhl, M.D., Ph.D.**  
Laboratory of Molecular Neurobiology  
Box 5180  
Baltimore, MD 21224

The NIDA is an Equal Opportunity/Affirmative Action Employer, M/F/H/V. ADAMHA is smoke-free.

**POSTDOCTORAL FELLOW.** Position available to participate in an interdisciplinary study of the pharmacology of ocular development. The study will address dopaminergic mechanisms in ocular growth, development and refraction, emphasizing the regulatory role of the retina. The fellow will interact with both molecular pharmacology and experimental ophthalmology laboratories. This position is appropriate for either a pharmacologist interested in vision research or a vision scientist/ophthalmologist seeking training in modern neuropharmacology. Please send curriculum vitae with the name and address of three references to: **Richard A. Stone, M.D., D-603 Richards Building, University of Pennsylvania School of Medicine, Philadelphia, PA 19104.** The University of Pennsylvania is an Equal Opportunity Employer.

**ASSISTANT RESEARCH SCIENTIST/POSTDOCTORAL FELLOWS.** Senior and junior positions available to study invasive mechanisms used by normal and neoplastic cells during transendothelial cell migration [e.g., *J. Clin. Invest.* **83**, 122 (1989); *N. Engl. J. Med.* **320**, 365 (1989); *Science* **249**, 178 (1990); *Science* **254**, 99 (1991)]. Strong background in endothelial cell-extracellular matrix biology/molecular biology is required. Salary \$35,000 to \$40,000 for Assistant Research Scientists and \$20,000 to \$25,000 for postdoctoral fellows. Applicants for assistant research scientists must be U.S. citizen or permanent resident of the United States. Submit curriculum vitae and two letters of reference to: **Dr. Stephen J. Weiss, Upjohn Professor of Medicine and Oncology, University of Michigan, Department of Internal Medicine, Hematology-Oncology, C570 MSRB II, 1150 West Medical Center Drive, Ann Arbor, MI 48109-0668.**

## POSITIONS OPEN

Position available for a **POSTDOCTORAL FELLOW (M.D., Ph.D.)** interested in experimental carcinogenesis, and having experience with molecular biology. Please submit curriculum vitae and three letters of reference to: **Ms. A. Roman-Koller, Administrative Director, University of Pittsburgh, Department of Pathology, School of Medicine, 720 Scaife Hall, Pittsburgh, PA 15261.** The University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL RESEARCH ASSOCIATE.** Requires an earned Ph.D. in animal science or a related field with emphasis on ruminant nutrition. Duties include: (1) conducting ruminant animal nutrition studies and rumen continuous culture fermenter experiments; (2) evaluating nutritive value of feedstuffs by NIR, HPLC and GC techniques; (3) performing laboratory chemical analyses of feed samples including structural and nonstructural carbohydrate; and (4) conducting statistical analyses for experimental data and writing scientific publications. Potential candidates must have 3 years of experience in NIR analysis and continuous culture fermenter experiments. Experience in VFA, RNA, DAPA and penolics analysis by GC and HPLC is essential. Experience with computer data analysis by SAS is required. Position location: Moscow, Idaho. Forty hours per week. Salary: \$22,000 per year. Send résumé and names of three referees to: **Idaho Department of Employment, Employment and Training Programs Bureau, Job Order No. ID 6052187, 317 Main Street, Boise, ID 83735** no later than 1 December 1991.

### UNIVERSITY OF LEICESTER DEPARTMENT OF ZOOLOGY POSTDOCTORAL RESEARCH ASSOCIATE DNA POLYMORPHISMS IN THE CHICKEN

A postdoctoral research associate is required for a period of 2 years from, or soon after, 1 January 1992. The appointees will be responsible for cloning and analyzing minisatellite polymorphisms as an initial step in the construction of the genetic map in the chicken. They will join a group with wide experience of DNA fingerprinting and related cloning techniques, as well as interests in molecular evolution and population genetics.

A background in molecular biology would be an advantage, but training is otherwise available. Salary on the R&A IA Scale (£11,969 to £19,073) (1 April 1991 Interim Scales).

Applications, including curriculum vitae and the names of two referees, should be sent to: **Dr. T. A. Burke, Zoology Department, University of Leicester, University Road, Leicester LE1 7RH, United Kingdom.** Telephone: 0533 523351; FAX: 0533 523330.

### POSTDOCTORAL RESEARCHERS

The Department of Physiology and Biophysics, University of California, Irvine, is developing a postdoctoral candidate pool for possible openings during the remainder of the 1991 to 1992 fiscal year. Openings may be available in the following research areas: ion channels in lipid bilayers; physical chemistry of membranes; mechanisms and regulations of steroid hormone biosynthesis; exercise physiology; molecular properties of ion channels in excitable cell membranes; molecular and electrophysiological aspects of lymphocyte activation. Salary is in accordance with current NIH/NSF postdoctoral stipends which are based upon qualifications and years of prior, relevant postdoctoral experience. Minorities and women are encouraged to apply. Send curriculum vitae and names of three references to: **Michael D. Cahalan, Ph.D., Chairman, Department of Physiology and Biophysics, University of California, Irvine, Irvine, CA 92717.** The University of California, Irvine, is an Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL RESEARCH ASSOCIATE

A position is available immediately in the University of Illinois at Chicago to perform mutation analysis of the bacterial multidrug transporter function (see *Proc. Nat. Acad. Sci. U.S.A.* **88**, 4781). Candidates should have a background in molecular biology, microbial genetics, or both, and a strong commitment to research. Send curriculum vitae, description of accomplished projects, and the names of references to: **Dr. Alexander A. Neyfakh, Department of Medicinal Chemistry (M/C 781), University of Illinois at Chicago, Box 6998, Chicago, IL 60680** before 1 December 1991. Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH ASSOCIATE

Conduct research supported by the National Institute on Drug Abuse concerned with the neuronal mechanisms underlying the subjective effects of CNS stimulants (*d*-amphetamine, cocaine), hallucinogens (LSD, mescaline) and related drugs of abuse (MDA, MDMA). Some knowledge of and interest in behavioral techniques such as drug discrimination as well as pharmacological assay procedures including HPLC, receptor binding, and in vivo dialysis desirable. In addition to developing his or her independent program of research, the successful candidate will be expected to coordinate and supervise the activities of technicians as well as undergraduate and graduate students. Send curriculum vitae, a statement of research interests and three letters of reference to: **James B. Appel, Ph.D., Behavioral Pharmacology Laboratory, Department of Psychology, University of South Carolina, Columbia, SC 29208.** The University of South Carolina is an Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL/RESEARCH ASSOCIATE

Investigation of transmitter receptors in vertebrate retina using patch-clamp recording from slices. Position open 1 January 1992. Must have previous experience either with retina or with single-cell electrophysiology. Salary \$26,000 plus health. Send curriculum vitae and three references to: **Professor Gordon L. Fain, Departments of Ophthalmology and Physiological Science, Jules Stein Eye Institute, University of California Los Angeles School of Medicine, Los Angeles, CA 90024.** FAX: 213-825-0841.

### POSTDOCTORAL RESEARCH ASSOCIATE

Position available for recent Ph.D. to study microbial pathogenesis with particular reference to the molecular basis of microbial interactions with the environment. Experience in molecular biology and biochemistry of bacterial surfaces is desirable. The salary is competitive and career advancement is possible. Send curriculum vitae and names of three references to: **Dr. Burton Rosan, Department of Microbiology, University of Pennsylvania, School of Dental Medicine, Philadelphia, PA 19104-6003.** Equal Opportunity Employer.

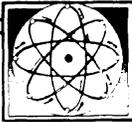
**POSTDOCTORAL RESEARCHER.** Duties: Study on DNA of *Gila* fish using PCR, DNA sequencing and SSCP. Use computer programs for phylogenetic analysis. Compare DNA from museum specimens with fresh specimens to analyze effect of environmental changes on fish fauna. Requires: Ph.D. in biology, knowledge of and 1 year research experience in molecular genetics of fish. Salary: \$22,000. Send résumé and have three letters of recommendation sent to: **Dr. Marek Kaliszewski, Department of Zoology, 155 WIDB, Brigham Young University, Provo, UT 84602.** Equal Opportunity Employer.

**RESEARCH ASSOCIATES.** Positions are available for the study of structure/function relationships in single-stranded nucleic acid binding proteins. Systems being studied include the bacteriophage T4 regA translational repressor and eukaryotic hnRNP proteins. Approaches being used include in vitro mutagenesis, synthetic peptide analogues, and a variety of biophysical techniques including: fluorescence quenching, CD, polynucleotide melting, crystallography, and NMR. Applicants should submit their curriculum vitae and the names of three references to either **Dr. Eleanor Spicer** or **Dr. Kenneth Williams, Department of Molecular Biophysics and Biochemistry, Yale University, 333 Cedar Street, New Haven, CT 06510.** An Equal Opportunity Employer.

### RESEARCH ASSOCIATE POSITION AVAILABLE

Research Associate position available in the Program of Cell Biology and Genetics with joint appointment in Department of Surgery, Memorial Sloan-Kettering Cancer Center. An opportunity exists for program development in molecular approaches to the detection of genetic predisposition to environmental carcinogenesis. A focus will be on head and neck cancer patients predisposed to multiple malignancies including cancers of the lung and digestive tract.

Interested individuals should send curriculum vitae and names of three references to: **Raju S. K. Chaganti, Ph.D., Member, Professor of Cell Biology and Genetics, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.**



## IMMUNOCHEMIST

Sigma Chemical Company develops, manufactures and distributes biochemicals and diagnostic reagents worldwide. Sigma immunochemicals, a group within the research division, develops and manufactures research immunochemical products including antibody conjugates and purified proteins.

Sigma immunochemicals has two immediate openings in its department.

### PROTEIN CHEMIST/FLOW CYTOMETRY

Immunochemist very experienced in flow cytometry to develop, fluorophore protein conjugates, new fluorophores, and applications data for analytical cytology products.

### IMMUNOCHEMIST

Immunochemist experienced in the development of immunoassays; immunoseparations; monoclonal antibody purification and modification; cell and tissue immunostaining to lead a program developing innovative new immunoassay techniques

The minimum qualifications for both positions are a B.S. or M.S. in a biological science with 5 years experience in the relevant areas or a Ph.D. in immunology or biochemistry with 2-3 years relevant experience.

The successful candidate will be highly innovative, have excellent communication skills and be a highly motivated team player.

Sigma Chemical company offers a competitive salary as well as full company paid benefits including relocation expenses. For consideration send your resume to: **Personnel Manager, Position T.S., Sigma Chemical Company, P.O. Box 14508, St. Louis MO 63178.** An Equal Opportunity Employer.

**SIGMA**  
CHEMICAL COMPANY

**We're Meeting The Challenge  
Of The 1990s with Quality**

### RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY

The Department of Biotechnology 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.

**POST-DOCTORAL RESEARCH ASSOCIATE (JOB #0309)** - A post-doctoral position is immediately available in the area of synthesis and structure-function of biologically active peptides. Education/Experience: PhD or equivalent related work experience in biochemistry/biophysics with experience in peptide synthesis and particular emphasis on the theoretical and practical aspects of knowledge-based amino acid substitutions on peptide structure-function. Candidates should also be familiar with the use of computer programs routinely used in protein structure analysis.

**RESEARCH ASSOCIATE, PROTEIN BIOCHEMISTRY (JOB #1356)** - A research associate position is immediately available in protein biochemistry with special emphasis in the area of peptide synthesis and characterization. Education/Experience: BS degree or equivalent in biochemistry or organic chemistry plus 3 years directly related lab experience including 1 year of lab experience in the biochemical characterization of proteins with chromatographic and electrophoretic techniques. Experience in peptide chemistry is preferred.

**RESEARCH ASSOCIATE, MAIZE GENETICS (JOB #2351)** - A resourceful, independent individual is being sought for a research associate position to help plan and conduct experiments involved in identifying and cloning agronomically significant genes in maize. Education/Experience: BS degree or equivalent plus 3 years directly related lab experience or MS degree. Applicants should also have experience with gene cloning techniques and molecular biology techniques (with maize is preferable). Please note: Application Deadline for JOB #2351 is November 15, 1991.

Applications received by December 1, 1991 (except where otherwise noted) will be assured of consideration. However, applications will be considered until the positions are filled.

Pioneer Hi-Bred International, Inc. is an Equal Opportunity/Affirmative Action employer. Please send resume indicating the JOB # and the names, addresses and telephone numbers of three references to:



**PIONEER HI-BRED INTERNATIONAL, INC.**  
Plant Breeding Division  
Department of Biotechnology Research  
Attn: Amy LaMotte  
P.O. Box 1004  
Johnston, IA 50131-1004



## NEUROGENETIC CORPORATION

**Neurogenetic Corporation** is a pharmaceutical company using promising new approaches in a program of drug discovery. Current expansion of our Neuroscience Program has created opportunities for Ph.D. scientists with a minimum of 2 yrs. postdoctoral experience in the following areas:

### Neuroanatomist/*In Situ* Hybridization Histochemist:

This position provides an opportunity for a scientist skilled in the *in situ* use of both oligo and ribonucleotide probes to further the understanding of neurotransmitter localization and function. Candidates must have proven expertise in mammalian neuroanatomy. Additional experience in human neuroanatomy, functional neuroanatomy, and chemical neuroanatomy is extremely desirable. The successful applicant will become a key member of our receptor localization team utilizing both receptor radioautography and *in situ* hybridization techniques to explore the distribution and function of neurotransmitter receptors. (Dept. 118)

### Biochemical Pharmacologist:

Candidates should have a strong background in both receptor binding and second messenger assays including computer assisted data analysis. The successful applicant will become part of our receptor discovery and characterization team using heterologous expression systems to explore receptor properties, function, and drug action. (Dept. 119)

### Peptide Receptor Pharmacologist

Candidates should have experience with receptor binding assays using peptide radioligands and expertise in computerized data analysis. Familiarity with robotic systems for binding assays, cell culture techniques, and peptide receptor autoradiography are desired. Industrial experience preferred. (Dept. 120)

### Peptide Receptor Signal Transduction Pharmacologist

Candidates for this position should have a strong background in second messenger assay systems particularly with respect to peptide receptors. Practical experience with PI turnover and adenylate /guanylate cyclase assays in cell lines is desirable. Industrial experience preferred. (Dept. 121)

**Neurogenetic Corporation** is an equal opportunity employer located in the New York City metropolitan area. We offer a competitive salary and benefits package, including relocation expenses.

Please include department code with application. For consideration, please submit your *curriculum vitae*, and three references to:

**Human Resources Manager  
Neurogenetic Corporation  
215 College Road  
Paramus, NJ 07652**

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH OPPORTUNITIES IN INDIA.** Research fellowships in India will be awarded through U.S. Agency for International Development program to U.S. citizens under 40 in 1992. Priority areas of research include: atmospheric/environmental sciences, biology, biotechnology, chemistry, computer software, electronics, forestry, geology, marine science, materials science, microelectronics, oceanography, physics, solid state electronics, water resources, and other appropriate fields. For application and proposal guidelines, contact: **Jeanine M. Daniels, Academy for Educational Development, 1255 23rd Street, N.W., Washington, DC 20037.**

### RESEARCH ASSOCIATE VOLTAGE-DEPENDENT CHANNELS OF VERTEBRATE NEURONS SUNY AT STONY BROOK

**POSTDOCTORAL POSITION** available to study synaptic transmission, active membrane properties and calcium dynamics in bullfrog sympathetic ganglion cells, PC12 cells, rat hippocampus and cat lateral geniculate. Techniques include single electrode voltage clamp, patch clamping, confocal microscopy, 3D reconstruction and high speed calcium imaging.

Send letters, curriculum vitae, and three references to: **Dr. Paul Adams, Department of Neurobiology and Behavior, SUNY at Stony Brook, Stony Brook, NY 11794-5230. An Equal Opportunity Employer.**

**RESEARCH ASSOCIATE (CHEMIST).** Research and develop methodologies to investigate chemical and physical effects of oxidant air pollutants on phospholipids of lung surfactant. Ph.D. in chemistry, with courses and graduate research concentrated in organic and physical chemistry. Know FTIR, UV, GC, FAB-MS, HPLC, NMR, Langmuir-Blodgett film-balance, and numerical analysis methods. Salary: \$33,000 per year. Forty hours per week. Job site/interview: Fullerton, California. Send ad/résumé to: **Job WS12394, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 16 November 1991.

**RESEARCH ASSOCIATE,** Penn State University. The Molecular and Cell Biology Department of the Eberly College of Science, The Pennsylvania State University, University Park, Pennsylvania invites applications for a research associate position in animal cell cycle biochemistry. Applications are invited from candidates with proven ability to conduct and publish research in the area of mitosis-specific protein kinases and phosphatases. A Ph.D. in biochemistry and 1 year postdoctoral research is required. Knowledge of recombinant DNA technology including molecular cloning, site-directed mutagenesis, and DNA sequencing is required. Experience is required in protein biochemistry which should include protein purification, phosphoprotein analyses, immunoprecipitations, and Western blot analyses. Experience in tissue culture techniques such as DNA transfections, cellular cloning, and cell cycle manipulations is essential. Familiarity with computers is desirable. Salary range: \$28,000 to \$30,000 per year, plus standard university benefits package. Send letter of application and résumé, by 1 December 1991, to: **Dr. Robert A. Schlegel, Chairman, Molecular and Cell Biology Department, Box SM, The Pennsylvania State University, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.**

### UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA) SCHOOL OF MEDICINE MOLECULAR BIOLOGIST/ SENIOR RESEARCH ASSOCIATE

Position available for Ph.D. interested in studying molecular mechanisms of cytokine regulation, gene transduction and cancer immunotherapy.

*UCLA and its affiliated institutions are Equal Opportunity and Affirmative Action Employers.* For consideration please submit curriculum vitae and two letters of reference to:

**Arie Belldegrn, M.D.  
UCLA School of Medicine  
Center for the Health Sciences  
66-118 CHS  
10833 LeConte Avenue  
Los Angeles, CA 90024-1738  
Telephone: 213-206-1434**

## POSITIONS OPEN

**RESEARCH ASSOCIATE.** Position available for Ph.D. to join and aid in the direction of an active hematopoiesis program. Laboratory studies include assessment of the effects of growth factors and antibodies to growth factor receptors in the murine system. Laboratory space and support available in the new West Pennsylvania Research Foundation Building. Direct inquiries to:

**Richard K. Shaddock, M.D.  
Director, Western Pennsylvania Cancer Institute  
4800 Friendship Avenue  
Pittsburgh, PA 15224**

### UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA) ASSISTANT RESEARCH IMMUNOLOGIST

Immediate opening for assistant research immunologist to perform research on the methodology of micro-cytotoxicity testing of vascular endothelial cells (VEC) and anti-VEC antibodies in transplant patients. Additional research to be performed on antiplatelet and anti-HLA antibodies in clinical kidney transplants using thrombocytotoxicity and MAIPA testing. Ph.D. or M.D. with minimum of 3 years of experience in HLA, VEC and platelet serology and in molecular biology/genetics required. Salary: \$41,600 per year. Send curriculum vitae, statement of research interests and names of three references to: **Paul I. Terasaki, Ph.D., UCLA Tissue Typing Laboratory, 950 Veteran Avenue, Los Angeles, CA 90024-1652. UCLA is an Equal Opportunity/Affirmative Action Employer.**

### CARNEGIE MELLON UNIVERSITY

**GRADUATE STUDY IN ENGINEERING AND PUBLIC POLICY (EPP).** The EPP Graduate Program leads to a research-based Ph.D. specializing in policy issues in areas such as: telecommunication, computer and other information technologies; design and application of conventional and AI-based computer systems for policy analysis and decision support; mathematical modeling of energy and environmental systems; technical and economic issues of peace and international security; manufacturing and industrial policy; and risk analysis. Applicants must hold a bachelor's degree in engineering, physical sciences, or mathematics. Education or experience beyond the bachelor's degree is very desirable. Contact: **Dr. Indira Nair, Engineering and Public Policy (07), Carnegie Mellon University, Pittsburgh, PA 15213.**

**An ESTUARINE ECOLOGIST/BIOLOGICAL OCEANOGRAPHER, Ph.D. AND MARINE BIOLOGIST, M.S.** Environmental consulting firm seeking applicants with Ph.D., interest/experience in multidisciplinary projects, and possessing excellent communication skills. Also seeking applicants with M.S., interest/experience in field work, analysis of field data, and SCUBA certified. Send curriculum vitae to: **Search Committee, Continental Shelf Associates, Inc. 759 Parkway Street, Jupiter, FL 33477. Equal Opportunity Employer.**

**PSYCHOPHYSICIST.** The University of Arizona Department of Radiology is seeking a psychophysicist to conduct experimental investigations of image quality in radiology and nuclear medicine. The successful applicant will work with physicians, scientists and engineers on developing new approaches to imaging and image display. Experience in observer-performance studies and knowledge of statistical aspects of ROC analysis is essential. Ability to program and use personal computers and a VAX 8600 is also required. Familiarity with current models of visual perception, including ideal-observer models, and the ability to apply these models to new imaging situations is highly desirable. Previous experience in radiology is not required, but some acquaintance with imaging systems would be useful. A Ph.D., preferably in psychology or a related field, is required. The appointment would be in the research (nontenure) track in the College of Medicine. The initial appointment would be at the level of **RESEARCH LECTURER OR RESEARCH ASSISTANT PROFESSOR**, depending on experience. Applications, including current curriculum vitae and names of three references, should be sent to: **Dr. Harrison H. Barrett, Department of Radiology, University of Arizona, Tucson, AZ 85724.** Deadline for applications is 25 November 1991. *The University of Arizona is an Equal Opportunity, Affirmative Action Employer. Applications from qualified women and minorities are encouraged.*

## POSITIONS OPEN

### CORN RESEARCH SCIENTIST

Lead research program on more efficient breeding methods for hybrid corn. Study use of molecular markers to predict combining ability. Give special attention to improving elite lines using broadbase germplasm. Develop quantitative genetic and population genetic theory/methods for choosing parents and multi-trait selection. Study use of incomplete block designs and trend analysis in yield trials. Emphasis placed on artificial inoculation and testing resistance of germplasm to leaf and stalk diseases. Provide statistical consultation to other researchers in the company. Write special computer programs for corn breeding research. Develop screening methods for stress tolerance. Ph.D. in agronomy and 6 months direct experience or 1 year as a research assistant (related experience must have included artificial inoculation and testing resistance of germplasm to leaf and stalk diseases). Ph.D. thesis must be in the use of broadbase germplasm to improve elite corn hybrids. One graduate course in each of the following: quantitative genetics; population genetics; math, statistics, and probability; computer programming; and one course in the use of molecular genetic markers. Salary: \$38,000 per year; 40 hours per week, 8:00 a.m. to 5:00 p.m., no overtime, Monday thru Friday. *Must have proof of legal authority to work permanently in the United States.* Send résumé to: **Illinois Department of Employment Security, 401 South State Street-3 South, Chicago, IL 60605. Attention: Maxine Counts. Ref. #V-IL 3454C.** No calls. *An employer-paid ad.*

### NATIONAL INSTITUTES OF HEALTH IMMUNOLOGIST WITH ADJUVANT EXPERIENCE

The National Institute of Allergy and Infectious Diseases, Division of AIDS, Vaccine Research and Development Branch has a challenging position for an immunologist (Ph.D. or M.D.) to administer and develop programs that facilitate the development of novel adjuvants to enhance the systemic and mucosal immunogenicity of AIDS vaccines. The applicant will work in the Preclinical Development Section of the Vaccine R&D Branch, participating in the design and evaluation of preclinical animal studies operated by the Vaccine R&D Branch, and act as a liaison between the AIDS Vaccine Clinical Trials Network, the FDA, and private sector in designing and conducting human studies of adjuvanted AIDS vaccines. Applicants should send curriculum vitae or Application for Federal Employment (SF 171) to: **Dr. Alan Schultz, Division of AIDS/NIAID, 6003 Executive Boulevard, Room 2B-03, Bethesda, MD 20892. Telephone: 301-496-8200, FAX: 301-402-1506. U.S. citizenship required. An Equal Opportunity Employer.**



**RESEARCH GENETICIST (PLANTS), GS/GM-440 to 12/13/14,** Permanent full-time, USDA, ARS Plant Genetics Research Unit, Columbia, Missouri. Research focus is on genetic mechanisms, molecular genetics, and cell biology of maize (*Zea mays L.*) and other species, where pertinent to maize biology and improvement. Laboratory and field facilities are available. Studies on the fundamental organization, functioning, and interactions of genes and chromosomes; on nucleic acids, enzymes, and other proteins; and on signal or regulatory constituents are appropriate. Applicable methodology includes genetic analysis, molecular approaches, and cytogenetics or developmental techniques. An advanced degree in genetics or related field which includes at least nine semester hours in genetics; knowledge of maize molecular biology, biochemistry of higher plants, and cytogenetics of maize; and the ability to direct the work of others, work in a molecular biology laboratory, and conduct research in the field are required. Graduate study in related fields which placed major emphasis on genetics may be qualifying. Salary: \$37,294 to \$68,129 per annum based on qualification. *U.S. citizenship is required.* For further information, contact **Drs. L. L. Darrah or E. H. Coe, Jr., at 314-875-5349 or FAX: 314-875-5359.** For application procedures/forms, contact **Beverly Webert at 301-344-1858.** (Incomplete applications will not be considered.) Applications in response to this advertisement should be marked **IN083**, and postmarked by 16 December 1991. *USDA-ARS is an Equal Opportunity Employer.*

Simon Fraser University  
Department of Chemistry

## ASSISTANT PROFESSOR IN BIOCHEMISTRY

The Department of Chemistry in conjunction with the Institute of Molecular Biology and Biochemistry invites applications from qualified individuals for a tenure track appointment at the level of Assistant Professor. The successful candidate will be expected to establish a productive research program in an area relating to the structure and function of proteins, and to participate in the instruction and training of graduate and undergraduate students. Candidates with a wide range of interests relevant to protein structure and function are encouraged to apply. The successful candidate will be a member of the Chemistry Department which has facilities for high-field NMR and x-ray crystallography. The candidate will be encouraged to interact with active research groups having interests in molecular recognition, enzymology, and protein structure and function. He/she will also have the opportunity to interact with Institute colleagues who are members of the Department of Biological Sciences. Laboratory space will be available in a major new science building due for completion in January 1993.

Applications should include a curriculum vitae, an outline of current and projected research interests, reprints of recent publications, and the names of at least 3 professional referees; which should be sent to: Dr. R.G. Korteling, Chair, Department of Chemistry, SIMON FRASER UNIVERSITY, Burnaby, British Columbia, Canada, V5A 1S6.

The closing date for this competition is January 15, 1992. In accordance with Canadian Immigration practice, priority will be given to Canadian citizens and Landed Immigrants. Simon Fraser University offers equal employment opportunities to qualified applicants.

## RESEARCH ASSOCIATE ANALYTICAL BIOCHEMISTRY

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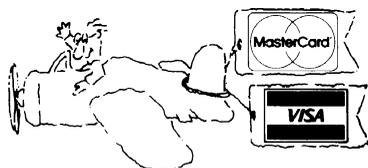
Responsibilities for this position will include contributing to ongoing programs for the development of physical methodologies for protein characterization including spectrophotometric methods and analytical ultra-centrifugation. Candidates for this position must have a BS or MS in Chemistry, Biochemistry or a related discipline and a minimum of two years relevant experience in the characterization of peptides and proteins. Candidates should be familiar with general methods for the separation and analysis of proteins. Experience in computerized data analysis, HPLC, and Spectroscopic methods is highly desirable.

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## RESEARCH OPPORTUNITY FOR MEDICAL STUDENTS

### HHMI-NIH RESEARCH SCHOLARS PROGRAM (CLOISTER PROGRAM)

The Howard Hughes Medical Institute (HHMI) and the National Institutes of Health (NIH) announce that applications are being accepted for the 1992-93 class of Research Scholars.

This HHMI-NIH joint program provides an opportunity for U.S. medical students to spend a year in laboratory research at the NIH in Bethesda, Maryland. Scholars select from more than 1,000 laboratories at the NIH and work with leading scientists on basic science research projects.

Scholars are employees of HHMI and are housed at The Cloister, a residence on the NIH campus. The annual salary is \$16,800, plus fringe benefits.

Applicant must be a U.S. citizen or permanent resident attending a medical school in the United States or Puerto Rico and must not be enrolled in an M.D.-Ph.D. program.

Deadline for applications is **January 10, 1992**. Students will be notified of results by **April 1, 1992**. The program year will begin in the summer of 1992.

Brochures and application kits are available in the student affairs office of medical schools; they may also be obtained by writing or calling:

Howard Hughes Medical Institute  
One Cloister Court  
Bethesda, MD 20814-1460  
Telephone: (301)951-6710 or (800)424-9924

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

## POSITIONS OPEN

### ASSOCIATE RESEARCH SCIENTIST

Nontenure-track position available in the Department of Physiology and Cellular Biophysics. Applicant must have M.D. or Ph.D. and at least 3 years of experience in primary neuronal tissue culture, whole cell patch recording, and optical recording techniques. Applicant will conduct research on non-NMDA receptor regulation of intracellular calcium. Please send letter and full curriculum vitae to: **Dr. Amy MacDermott, Department of Physiology and Cellular Biophysics, Columbia University, 630 West 168th Street, New York, NY 10032.** Columbia University is an Affirmative Action/Equal Opportunity Employer.

### PHYSICIST

Physicist position in Newport News, Virginia; 40 hours per week; 8:00 a.m. to 5:00 p.m.; \$57,600 to \$58,000 per year. The incumbent will be responsible for the design, commissioning, and operation of the radio frequency (RF) feedback control for the CEBAF continuous wave, superconducting electron accelerator; will develop RF control circuits for the 338 superconducting structures, the normal conducting chopper, buncher, and capture section which meet the stringent requirements for RF control; and will ensure that work stays in time schedule with other ongoing construction activities.

Requirements: Ph.D. in physics with at least 5 years of experience in design, evaluation, and commissioning of RF control systems for superconducting, continuous beam accelerators. Demonstrated experience with vector modulators as decoupling element for amplitude and phase loop in connection with superconducting accelerating structures. Previous experience using slow tuning systems to reduce power requirements. Must have evaluated RF control system under real beam conditions. Demonstrated ability to measure RF properties of niobium cavities of 2 K. Knowledge of beam diagnostic systems such as beam position and current monitors. Experience with control system design must include the integration of a 2-K helium cooling system. Extensive knowledge of data acquisition systems and data analysis is required.

To apply, mail or hand carry résumé with copy of ad attached by 30 November 1991 to: **M. J. Hotchkiss, Virginia Employment Commission, 5145 East Virginia Beach Boulevard, Norfolk, VA 23502.** J.O. #VA1092584.

An Equal Opportunity Employer, M/F/H/V.

**RESEARCH BIOLOGIST** position, Bronx, New York. The duties consist of conducting experiments related to neural control and genesis of respiration and performing animal (cat) surgery, electrophysiological recordings (neurograms, microelectrode signals), computer analysis of the recordings and writing of scientific papers. At least 2 years of previous experience in respiratory physiology and neurophysiology using nerve fiber and neuron discharge recording techniques are required. Forty hours per week. Salary: \$35,000 per year. Send a résumé or letter in duplicate describing qualifications to attention of: **F.R. #506, Room 501, One Main Street, Brooklyn, NY 11201.** Equal Opportunity Employer.

**SENIOR RESEARCH CHEMIST.** Total synthesis of complex natural products. Development of new strategies using Diels-Alder reaction, Dipolar cycloaddition reaction and radical cyclization reaction inorganic synthesis and development of new methodologies, e.g., deprotection of protecting groups, functional group modification and diastereoselective reduction of ketones, working on viral diseases for development of drugs through enzyme inhibitors. Development of mild degradation procedures for natural product isolation. Derivatization of natural products to probe pharmacophore of protein kinase-C activation. Design of unnatural activator of protein kinase-C through molecular modeling. Development of procedures to analyze human blood samples. Steroid synthesis from cholesterol using remote functionalization. Computer-aided modeling. Design new molecules to mimic characterization of natural products. Requirement: Ph.D. in chemistry with 2 years of experience as researcher involving in-depth experience in synthesis of complex natural products with demonstrated creativity and skill in manipulating complex molecules. Extensive background in organic synthesis involving molecular modeling with outstanding academic and publication background. Forty hours per week; \$4400 per month; submit curriculum vitae or résumé to: **Philadelphia Job Bank, 444 North 3rd Street, Philadelphia, PA 19123, JO #4430356.**

## POSITIONS OPEN

### SUPERVISOR BIOREMEDIATION RESEARCH

Institute of Gas Technology (IGT), a leading energy and environmental R&D organization, has an immediate opening in our Biotechnology and Environmental Research area for a Ph.D. in environmental engineering, soil microbiology, agronomy, or geotechnical engineering, with 5 to 8 years experience in toxic and hazardous waste management R&D. Must have project management, proposal and report preparation, and field or large-scale test experience, along with the ability to assume technical- and management-related responsibilities. Will be responsible for planning/designing soil and groundwater biotreatment experiments; analysis of data; report and proposal writing; and technical presentations for government- and industry-funded programs. Must have good oral and written communication skills, and the ability to work well with staff at all levels. IGT offers a professional environment, excellent benefits, competitive salary, and 100% tuition assistance. For confidential consideration, please send résumé with salary requirement to: **Personnel Department, VS-1, Institute of Gas Technology, 3424 South State Street, Chicago, IL 60616.** Equal Opportunity Employer/Affirmative Action.

### SCIENTISTS

Miles Incorporated, Cutter Biological, located close to Raleigh, North Carolina, is a world leader in the human plasma fractionation industry. The Department of Plasma Manufacturing Technology is a newly created department which seeks to apply modern techniques in biology to the large-scale purification and characterization of plasma proteins of therapeutic value. The following opportunities exist for both Ph.D. and M.S. scientists:

**RESEARCH SCIENTIST:** A recent Ph.D. with two or more years of postdoctoral experience and a broad knowledge of protein purification and characterization, particularly immunochromatography, is required to develop an interactive research program focusing on immunoglobulins. This position will involve establishing scientific collaboration within Miles and academic institutions. **Reference Job #CL92-02.**

**Senior Associate Research Scientists:** M.S. with at least 2 years of experience in biochemistry or a related subject is required to join a multidisciplinary group. The incumbents will be involved with both bench and pilot scale purification and characterization of proteins. A strong working knowledge of protein purification techniques is required. **Reference Jobs #CL92-01.** Send résumé to: **Personnel Manager, Miles Incorporated, P.O. Box 507, Clayton, NC 27520.**

### BEAM LINE SCIENTIFIC PROGRAMMER

A position with the Howard Hughes Medical Institute (HHMI) is available for a scientific programmer at the Hughes Synchrotron Resource. This facility comprises two beam lines ( $\times 4A$  and  $\times 4C$ ) constructed expressly for macromolecular crystallography at the National Synchrotron Light Source (NSLS) at Brookhaven National Laboratory.

The instrumentation at  $\times 4A$  and  $\times 4C$  is controlled by a Unix-based Concurrent MC6600 computer system. A suite of programs interfaces the Concurrent to the monochromators, diffractometers, beam monitoring devices, and also to an imaging phosphor reader system.

You will be required to develop, maintain, and enhance the software used to operate the HHMI beam line instrumentation. The primary responsibility is to provide for a stable interface of computer automation with the motors and output devices that control the x-ray optics, goniometers, point detectors, and area detectors.

To qualify, you must have a B.A. or B.S. degree. Advanced training up to a Ph.D. degree is preferred. Experience in computer programming, notably Fortran and C, is fundamental, and proficiency in crystallography or other physical sciences is highly desirable. Position title and salary will depend on training and experience.

To apply, please send your curriculum vitae to: **Mrs. Jean G. Smith, HHMI Synchrotron Resource, NSLS-X4, Building 725, Brookhaven National Laboratory, Upton, NY 11973-5000.** HHMI is an Equal Opportunity Employer.

## COURSES AND TRAINING

### BIOMEDICAL INITIATIVE SUPERCOMPUTING TECHNIQUES WORKSHOP

27 TO 31 JANUARY 1992

The Pittsburgh Supercomputing Center (PSC) is conducting a 5-day Supercomputing Techniques Workshop for biomedical researchers experienced in FORTRAN or C. Prior supercomputing experience is not necessary. Normal expenses are covered. Funding is by an NIH National Center for Research Resources grant. To apply contact: **Nancy Blankenstein, PSC, 4400 Fifth Avenue, Pittsburgh, PA 15213; telephone: 412-268-5206; e-mail blankens@cpwpsca.** Applications must be received by 6 December 1991.

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# Software Digest

## RATINGS REPORT

The Independent Comparative Ratings Report for Selecting IBM PC Business Software

Volume 8, Number 5

### STATISTICS PROGRAMS

Statistical programs present a high degree of complexity that limits their use. Some of the test programs have been modified to minimize that complexity, but to a large extent they remain complicated. Programs originating in mainframe environments make few concessions to the PC environment and PC users.

- Systat balances power and usability; SAS provides great power to users who master it; and Statgraphics is the easiest to learn and use. NSTL does not recommend the other programs for PC use except in businesses already running the mainframe version.
- Four of the statistics packages are sold as modules, and prices range from \$200 to over \$4,000 for a complete set. Refer to the Program Module Chart on page 10.
- Contrary to the common belief among statisticians, great differences in calculation speed separate the programs. Calculation speed can be very important to users who run frequent analysis of large data sets. (Performance Results, page 32).

Place this report in your binder behind the Miscellaneous Software tab divider.

Digest Rating	Program	Version	Person	Quality	Value	Price	Features	Agreement
*** 7.7 7.5	Systat	5	■ ■ ■ ■ ■	■ ■ ■ ■ ■	600KB	\$895-\$3,270 modular	✓ 30	
*** 7.2 7.3	SAS Applications System	6	■ ■ ■ ■ ■	■ ■ ■ ■ ■	640KB	\$4,870 modular	✓ 24	
*** 7.2 5.8	Statgraphics	pre-5	■ ■ ■ ■ ■	■ ■ ■ ■ ■	640KB	\$995	✓ 28	
** 6.6 6.4	SPSS/PC+	4.0	■ ■ ■ ■ ■	■ ■ ■ ■ ■	512KB	\$195-\$3,040 modular	✓ 26	
		1990	■ ■ ■ ■ ■	■ ■ ■ ■ ■	512KB	\$2,195 modular	✓ 22	
			■ ■ ■ ■ ■	■ ■ ■ ■ ■	90KB		✓ 21	

**Ratings Key**  
(On a scale of 0 to 10)

**OVERALL EVALUATION**  
★★★★★ 9.0 or higher

★★ 6.0-6.9  
★ 5.0-5.9

**ALL OTHER RATINGS**  
■ 7.0-9.9  
■ 5.0-6.9  
■ under 5.0

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Performance Quality	32-40

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SYSTAT is rated #1 by Software Digest®. In fact, SYSTAT is the only statistical analysis package to receive top honors from InfoWorld, PC Magazine and PC Week. According to Software Digest: "It is the only program that successfully blends robust features, good usability and performance, and many areas of uncommon strength from analytical graphs to powerful programming."

SYSTAT. The statistics speak for themselves.

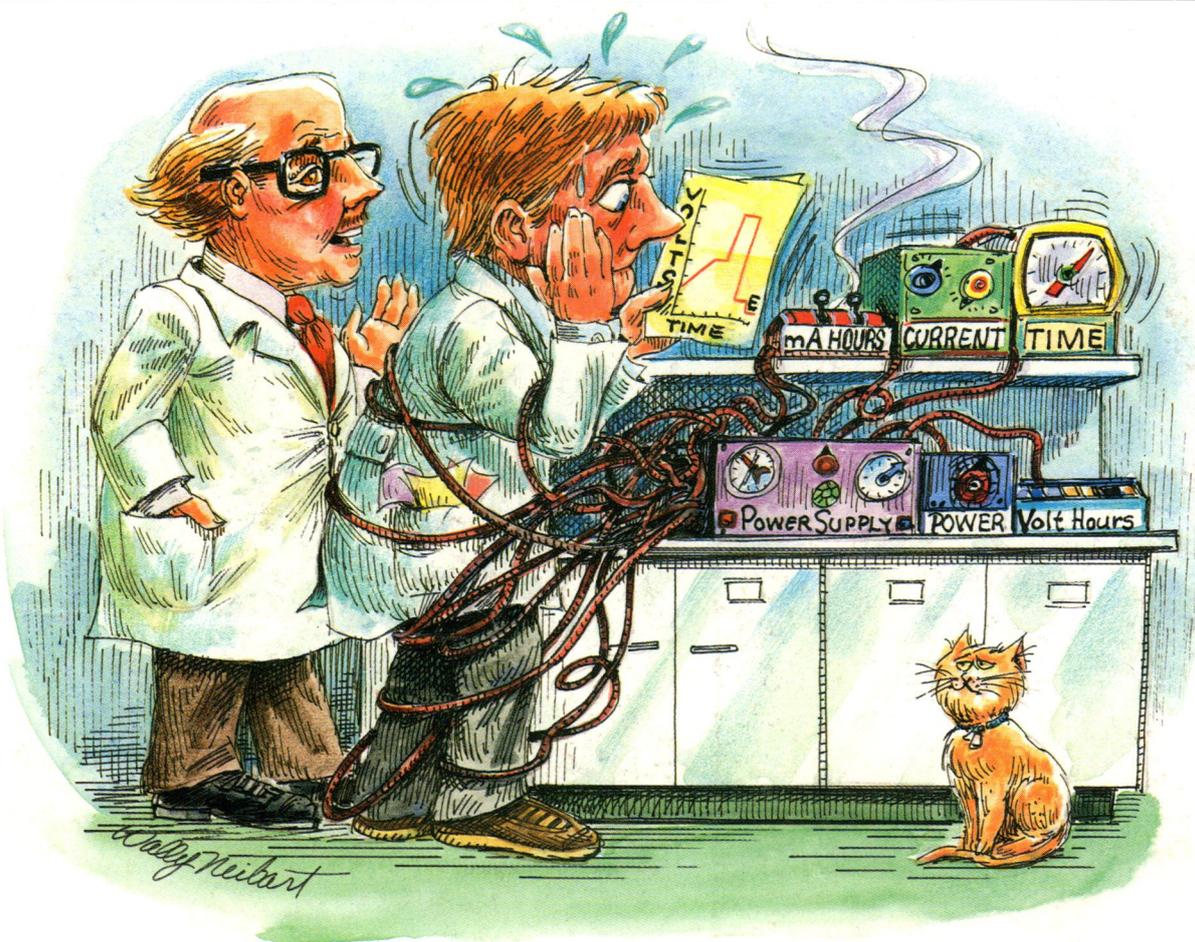
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For international representatives call: Australia 61.3.8661766, Canada 416.424.1700, Denmark 45.64.406575, Finland 358.0.6923800, France 33.1.40935000, Germany 49.61.265950 (DOS), 49.30.310423 (Mac), Italy 39.587.213640, Japan 81.33.5902311, New Zealand 64.71.562675, Norway 47.3.892240, Sweden 46.7.6076207, Switzerland 41.31.416611, The Netherlands 31.340.266336, UK London 44.81.6926636.

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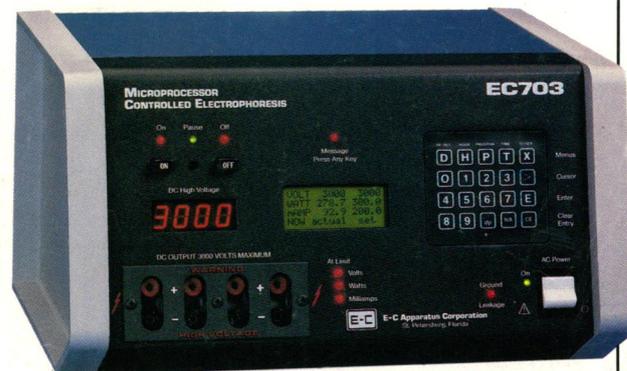
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