

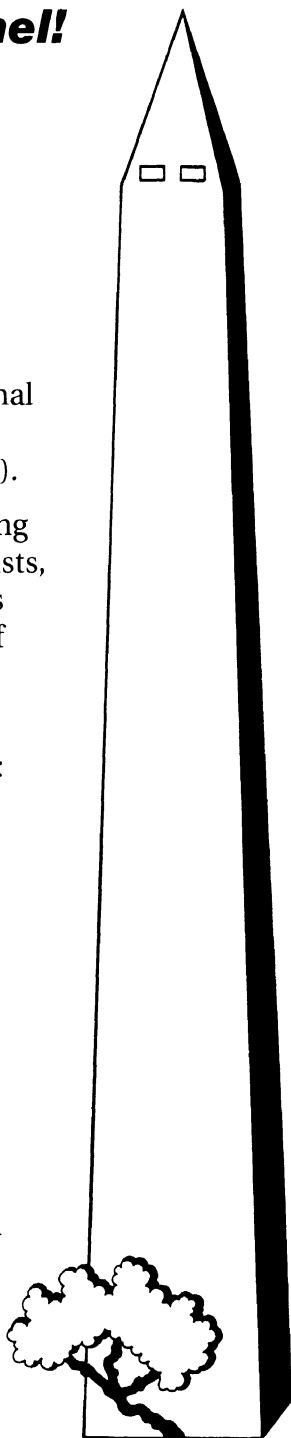
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## BOOKS FROM SCIENCE



### Astronomy & Astrophysics

*Edited by Morton S. Roberts*

Provides a broad, coherent picture of the universe, from the solar system to the quasars at the edge of the cosmos. 1985; 384 pp.; color plates  
 #85-04H; hardcover; \$29.95 (members \$23.95)  
 #85-04S; softcover; \$17.95 (members \$14.35)

### Biotechnology:

#### The Renewable Frontier

*Edited by Daniel E. Koshland, Jr.*

Presents topics at the forefront of biological research, including techniques, immunology, developmental biology and cancer, hormones and metabolism; biotechnology, virology, plant sciences, and behavior and sensory phenomena. 1986; 384 pp.

#85-26H; hardcover; \$29.95 (members \$23.95)

#85-26S; softcover; \$17.95 (members \$14.35)

### Frontiers in the Chemical Sciences

*Edited by William Spindel and Robert M. Simon*

Selected articles from 1980 to 1985 deal with areas such as molecular reactivity, catalysis and synthesis, and analytical tool development. 1986; 624 pp.

#85-10H; hardcover; \$29.95 (members \$23.95)

#85-10S; softcover; \$17.95 (members \$14.35)

### AIDS:

#### Papers from Science, 1982-1985

*Edited by Ruth Kulstad*

Frequently cited research papers and news reports on AIDS trace the history and scientific developments of the epidemic through September 1985. 1986; 654 pp.

#85-23S; softcover; \$19.95 (members \$15.95)

### Science, Technology, and Society: Emerging Relationships

*Edited by Rosemary Chalk*

Offers 85 articles, editorials, and letters from *Science* magazine on the relationship between science and technology and society covering the period since World War II. 1988; 262 pp.

#88-12S; softcover; \$19.95 (members \$15.95)

**Order from:** AAAS Books, Dept. A17, PO Box 753, Waldorf, MD 20604. Phone orders (VISA/MasterCard only), call 301-645-5643 (9am-4pm ET) and ask for AAAS. Individuals must prepay or use VISA/MC; purchase orders, add \$3.50 shipping. Specify item #; allow 2-3 weeks for delivery. For shipments to CA, add sales tax.

**AAAS** American Association for the Advancement of Science



# Personnel Placement

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

## LINE CLASSIFIED ADVERTISEMENTS

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

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

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

**SUBMISSION:** Prepare double-spaced typewritten ad copy on a separate sheet. On cover sheet, state name and telephone number of contact person, desired date(s) of publication, and billing information, including any special invoicing requests. Mail or FAX to:

**SCIENCE Classified Advertising**  
1333 H Street, NW, Room 940  
Washington, DC 20005  
Telephone: 202-326-6555  
FAX: 202-682-0816

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

**PREPAYMENT DISCOUNT:** A 3% cash discount is granted to all prepaid line ads. Prepayment in U.S. dollars by checks drawn on U.S. banks is required for all foreign ads.

**CREDIT CARDS:** **SCIENCE** accepts MasterCard and VISA. Both personal and corporate cards may be used. The prepayment discount does not apply to credit card ads.

**BOXES AND LOGOS:** Any 1-column line classified ad can be boxed and/or published with logo. No extra production charge for use of box or logo. For boxed ads, one line equals 48 characters and spaces; two additional lines will be added to cost of ad to allow for top and bottom rules. Logos are billed according to number of lines needed to accommodate logo.

**CANCELLATIONS:** Deadline for cancellations is 10 a.m. Tuesday, 10 days prior to issue date.

## DISPLAY PERSONNEL ADVERTISEMENTS

For rates, deadlines, and information about fractional display ads (1/6 page and larger) and all Marketplace listings of available products and services, contact:

**Scherago Associates, Inc.**  
1515 Broadway  
New York, NY 10036  
Telephone: 212-730-1050  
FAX: 212-382-3725

## RESPONSES TO EMPLOYMENT ADS

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

To reply to a blind box ad, address correspondence to:

Box (give number)  
**SCIENCE Classified Advertising**  
1333 H Street, NW, Room 940  
Washington, DC 20005

## POSITIONS OPEN

Colby College invites applications for a 1-year, sabbatical leave replacement position (1991-92) as **ASSISTANT PROFESSOR OF BIOLOGY**. Candidates should have a Ph.D., experience with and a strong commitment to teaching undergraduates, broad training in the biological sciences, and special interests and training in genetics, animal behavior, and animal biology. Familiarity with liberal arts colleges and/or postdoctoral training are desirable. Responsibilities will include teaching an upper-level course in genetics and one in animal behavior, and a segment of our introductory biology course that deals with animal biology. Submit letter of application, statement of teaching and research interests, curriculum vitae, reprints of publications, undergraduate and graduate transcripts, and three letters from individuals familiar with the applicant's teaching and/or research to: **Professor Arthur K. Champlin, Chair, Department of Biology, Colby College, Waterville, ME 04901**. Applications should be complete by 17 December 1990. *Colby College is an Affirmative Action/Equal Opportunity Employer and strongly encourages applications from women and minorities.*

## ENVIRONMENTAL BIOLOGIST/ECOLOGIST

**ASSISTANT PROFESSOR.** Tenure track. Responsibilities include teaching general biology and upper division courses in his/her specialty. Ph.D. required, *appropriate visa status if applicable*, commitment to undergraduate teaching and research; teaching experience preferred. *Qualified minority candidates are encouraged to apply.* Send curriculum vitae, transcripts, and letters from three references to: **Search Committee, Department of Biology, Purdue University Calumet, Hammond, IN 46323**. *Purdue Calumet is an Equal Opportunity/Affirmative Action Employer.* Closing date: 18 January 1991.

## UNIVERSITY OF OTTAWA DEPARTMENT OF PHARMACOLOGY

A tenure-track **ASSISTANT PROFESSOR POSITION** is available for candidates with a background in pharmacology. The successful candidate will have a Ph.D. or equivalent degree, at least 2 years of postdoctoral experience, and a strong commitment to research and teaching. Preference will be given to candidates with a molecular biology approach to research. Major research interests of the department include neuropharmacology, immunopharmacology, cardiovascular pharmacology, endocrine pharmacology, and toxicology. The department has teaching responsibilities for medical, nursing, and undergraduate students as well as graduate students in the M.Sc. and Ph.D. programs. Knowledge of French is an asset. Applications, which must include curriculum vitae, three letters of recommendation, a brief description of research and teaching experience, a statement of career objectives, and an outline of proposed research, should be sent to: **Dr. J.-M. Trifaro, Chairman, Department of Pharmacology, Faculty of Medicine, University of Ottawa, 451 Smyth Road, Ottawa, Ontario, Canada, K1H 8M5**. The closing date for applications is 31 January 1991.

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

## ASSISTANT PROFESSOR NEUROPHARMACOLOGY

Applications are invited for a tenure-track position available in 1991 at the assistant professor level in the Department of Pharmacology at the University of Rochester. Because the candidate would be expected to interact with faculty in the departmental Experimental Therapeutics Unit, whose focus is neurodegenerative diseases, we seek applicants who address fundamental questions in neuropharmacology and who are interested in the pharmacology of neurodegenerative diseases. Applicants must have a Ph.D. or M.D. degree, or both, 2 years of postdoctoral experience, the potential to develop and maintain an independent research program, and an interest in professional and graduate education. Applicants should send their curriculum vitae, the names of at least three references, and a description of their present and future research interests to: **Experimental Therapeutics Search Committee, Department of Pharmacology, University of Rochester, 601 Elmwood Avenue, Rochester, NY 14642**. Applications will be received until 31 December 1990 or until the position is filled. *The University of Rochester is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

## POSITIONS OPEN

### TENURE-TRACK ASSISTANT PROFESSOR MARINE GEOLOGY AND GEOPHYSICS

The School of Oceanography invites applications for a tenure-track position at the assistant professor level to complement our existing interdisciplinary program on mid-ocean ridge processes. Applicants should be highly qualified in quantitative modeling of processes involved in the creation and early development of oceanic lithosphere and demonstrate an interest in the dynamics of the upper mantle, the processes associated with the extraction of melt from the mantle, the thermo-mechanical properties of the lithosphere, and physical processes in hydrothermal systems. The successful candidate will be expected to have a strong commitment to sea-going research and to develop a strong research program that integrates a wide range of observational and experimental data. In addition, teaching at the undergraduate and graduate levels, as well as supervision of graduate students, will be an integral responsibility. Closing date for applications is 15 January 1991. Applicants should send curriculum vitae, a statement of research interest, a list of publications, recent reprints, and the names of four references to: **Professor A. R. M. Nowell, Director, School of Oceanography, WB-10, University of Washington, Seattle, WA 98195**. *The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

## CELL BIOLOGY

A tenure-track appointment at the **ASSISTANT PROFESSOR** level is available as of September 1991. Qualifications include a Ph.D. and postdoctoral experience. The successful candidate will be expected to teach undergraduate courses in cell biology, either developmental biology or genetics; teach general biology; develop graduate courses in his/her area of expertise; and participate in our genetic engineering option. Training of graduate students at the M.S. level and ability to develop an externally fundable research program are expected. Search will continue until position is filled. Please send your curriculum vitae, transcripts, reprints, statement of teaching interests and experience, research plans, and three letters of reference to: **Southern Illinois University at Edwardsville (SIUE), Biological Sciences Department, Box 1651, Edwardsville, IL 62026-1651**. **Attention: Search Committee.** *SIUE is an Affirmative Action Employer.*

## THE UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA) BIOLOGICAL CHEMISTRY ASSISTANT PROFESSOR

The Department of Biological Chemistry in the School of Medicine at the University of California, Los Angeles, has an opening for an assistant professor (tenure track) to be filled in either 1991 or 1992. Outstanding candidates with research interests in any area of molecular, cellular, or developmental biology; biochemistry; or genetics are encouraged to apply. Completed applications consisting of curriculum vitae, a one-page summary of research plans, and the names and addresses of three references should be sent to:

**The Search Committee**  
Department of Biological Chemistry  
UCLA School of Medicine  
Los Angeles, CA 90024-1737  
FAX: 213-206-5272

*The University of California is an Equal Opportunity Employer. Applications from women and members of minority groups are strongly encouraged.*

**BIOCHEMIST.** Tenure-track **ASSISTANT PROFESSORSHIP** beginning September 1991 in A.C.S.-approved chemistry department at Randolph-Macon College, a small coeducational liberal-arts college 20 miles north of Richmond, Virginia. Candidate must have Ph.D. in biochemistry or related discipline and show evidence of commitment to undergraduate education and research. Responsibility for biochemistry courses and for developing a course in molecular biology; ability to teach organic chemistry highly desirable. Teaching load of 24 contact hours per academic year. *Randolph-Macon is an Equal Opportunity Employer.* Letter of application, brief descriptions of teaching philosophy and research plans, curriculum vitae, and three letters of recommendation must reach us by 31 December 1990. Send to: **Dr. Brian W. Moores, Chair, Department of Chemistry, Randolph-Macon College, Ashland, VA 23005**.



## POSITIONS OPEN

**ASSISTANT PROFESSOR, BIOLOGY.** Mount Saint Mary's College (MSMC). Applications invited for a tenure-track faculty position starting August 1991, from recent Ph.D.'s dedicated to quality teaching at a Catholic liberal arts college. All areas considered. Duties may include introductory biology, upper level courses, non-majors biology, and undergraduate research. Competitive academic year salary. Send cover letter, curriculum vitae, undergraduate and graduate transcripts, three letters of recommendation, and outlines of research interests and instructional strategies to: **Dr. Robert Richman, Department of Science, Mount Saint Mary's College, Emmitsburg, MD 21727**, by 14 January 1991. *MSMC does not discriminate on the basis of sex, age, race, or national origin.*

**ASSISTANT PROFESSOR, PLANT DEVELOPMENTAL BIOLOGY.** We seek applications for a tenure-track position in the area of plant development. Applicants must have received training in whole plant structure and anatomy and must have an established research program focusing on plant development. Preference will be given to applicants whose research can interface with the research activities of current faculty. Teaching responsibilities will include a course covering basic and contemporary aspects of plant anatomy and participation in an undergraduate majors course in developmental biology. Applicants are expected to have a Ph.D. in botany or other appropriate field of biology and must have a strong commitment to excellence in research, graduate training, and teaching. Applicants should submit the following before 15 January 1991: curriculum vitae; copies of recent publications, grant applications, and/or manuscripts; a statement of research interests, goals, and current research activities; a description of teaching philosophy and experience; and at least three letters of reference to: **Dr. Craig Martin, Chair, Search Committee, Department of Botany, Haworth Hall, University of Kansas, Lawrence, KS 66045-2106. Telephone: 913-864-3645. The University of Kansas is an Equal Opportunity/Affirmative Action Employer.**

### ASSISTANT PROFESSORSHIPS, BOTANY

Applications are invited for two entry-level, tenure-track positions in botany: (i) plant ecology and (ii) plant morphology. For each position a strong commitment to excellence in teaching and the development of an active externally funded research program will be expected. Curriculum vitae, copies of relevant publications, official graduate and undergraduate transcripts, and at least three letters of recommendation should be received by 15 January 1991 by: **Dr. David E. Lemke, Department of Biology, Southwest Texas State University, San Marcos, TX 78666-4616. Equal Opportunity/Affirmative Action Employer.**

**ASSISTANT PROFESSOR.** A new position will become available in January 1991 for a qualified individual who has demonstrated ability to conduct productive basic research in one of the following areas of tumor immunology: membrane structure and function, control of gene expression, cytolytic mechanisms. Minimal qualification will include Ph.D. or M.D. degree with postdoctoral experience. Applications consisting of curriculum vitae, a summary of research accomplishments, reprints of three selected publications, and three letters of reference should be sent to: **Dr. Eva Lotzová, Chief, Section of Natural Immunity, Department of General Surgery, The University of Texas, M.D. Anderson Cancer Center, 1515 Holcombe Boulevard, Box 18, Houston, TX 77030. We are an Equal Opportunity/Affirmative Action Employer.**

**MOLECULAR PLANT PHYSIOLOGIST, ASSISTANT PROFESSOR.** The Biology Department at Hobart and William Smith Colleges invites applications for a tenure-track position in molecular plant physiology, effective 1 July 1991. Teaching responsibilities include plant physiology, molecular biology, and a course in the candidate's specialty, as well as participation in the colleges' general curriculum. Qualifications include a Ph.D. and a desire to involve undergraduates in research. A new science facility is in development. Applications must include curriculum vitae, statements of teaching and scholarship goals, all transcripts, and three letters of recommendation. The closing date for applications is 11 January 1991. Send to: **Dr. Valerie M. Kish, Biology Department, Hobart and William Smith Colleges, Geneva, NY 14456. Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

**SYSTEMATIC MAMMALOGIST.** Tenure-track **ASSISTANT PROFESSOR** beginning fall semester 1991. Ph.D. (ABD considered); experienced teaching. To teach mammalogy, wildlife conservation, and introductory courses. Send curriculum vitae, transcripts of all college work, and three recommendation letters to: **David Castaner, Biology Department, Central Missouri State University, Warrensburg, MO 64093-5053.** Considerations begin 26 December 1990 and will continue until a suitable candidate is selected. *Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to apply.*

**SYSTEMIC ZOOLOGIST, ASSISTANT PROFESSOR.** Tenure-track, fall 1991. Ph.D. required. Preference given to applicants with a combination of field and molecular training and interests. To teach introductory organismal biology, an advanced course in specialty, participate in college-wide programs and develop research program involving students. Send curriculum vitae, transcripts, and three letters of reference by 31 January 1991 to: **Dr. David Jordan, Vice President for Academic Affairs, Austin College, Sherman, TX 75091-1177.**

### MIAMI UNIVERSITY

The Department of Zoology at Miami University intends to make two tenure-track appointments at the **ASSISTANT PROFESSOR** level on the Oxford Campus effective August 1991. We are seeking a molecular biologist with a Ph.D. whose training is in developmental biology and/or genetics, and who is interested in both teaching and research. Duties include teaching graduate and undergraduate courses in a new interdepartmental program in molecular biology and biotechnology. We also are seeking a developmental biologist with a Ph.D. whose training is at the cell or molecular level, and who is interested in both teaching and research. Teaching duties include on a rotational basis courses in developmental biology and in the introductory program. The successful applicants are expected to develop an active research program and to seek external funding for it. Application review will begin 15 January 1991. Specify the position(s) in which you are interested, and send a résumé, transcripts of all academic work, a description of research and teaching interests, and three letters of reference to: **R. G. Sherman, Department of Zoology, Miami University, Oxford, OH 45056.**

*Minorities and women candidates are strongly encouraged to apply. Miami University is making every effort to create a diverse, heterogeneous faculty and staff.*

### OCEANOGRAPHER/LIMNOLOGIST/AQUATIC ECOLOGISTS

The Department of Biology and the Center for Great Lakes and Aquatic Sciences at the University of Michigan invite applications for two positions at the **ASSISTANT PROFESSOR** rank from individuals broadly skilled in the aquatic sciences. Outstanding scientists working in any area of aquatic research will be considered, but candidates must have the ability to conduct research that intersects disciplinary fields. The candidates' ecologic interests may span biogeochemistry, microbial ecology, plankton ecology, population genetics, or paleoecology and focus on community, population, or ecosystem levels of organization. The interfaces of biology with physics, mathematics, geochemistry, and molecular biology are of particular interest to our faculty. Candidates should have demonstrated an ability to originate funded research projects, and will be expected to raise a significant portion of their own salary through research grants. The opportunity exists for the candidates to interact with a diverse community of aquatic scientists at the university and at nearby cooperative laboratories. Teaching responsibilities will include participation in undergraduate courses in oceanography, introductory biology, and general ecology, as well as graduate courses in particular specialties. *Women and minorities are especially encouraged to apply.* Applications should include curriculum vitae, representative reprints, and a statement of future research plans. Applicants should ask three referees to supply letters of recommendation. The closing date for applications is 31 January 1991. All materials should be sent to:

**Chair, Aquatic Biology Search Committee  
Department of Biology  
The University of Michigan  
Ann Arbor, MI 48109-1048**

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

## POSITIONS OPEN

### IMMUNOLOGY/MICROBIOLOGY

The Department of Biology, University of St. Thomas, invites applications for a full-time, tenure-track position in immunology/microbiology. The appointment will be made at the **ASSISTANT PROFESSOR** level, effective September 1991. Responsibilities will include teaching upper-division courses for majors in microbiology and immunology, some laboratory teaching in general (non-majors) and/or introductory (majors) biology, and establishing a vigorous research program involving undergraduate students. St. Thomas is a coeducational, Catholic liberal arts college committed to the total development of the individual student. The successful candidate will have a Ph.D. and a strong commitment to teaching at the undergraduate level and in a liberal-arts context. Postdoctoral teaching and research experience are preferred. Send letter of application, brief statements of teaching philosophy and research plans, and curriculum vitae, and have three letters of recommendation sent directly, to: **Ms. Penny M. Pease, Mail #4050, University of St. Thomas, 2115 Summit Avenue, St. Paul, MN 55105-1096.** All materials must be received by 4 January 1991. *The University of St. Thomas is an Equal Opportunity/Affirmative Action Employer.*

**ORGANIC CHEMIST.** Tenure-track faculty position at the **ASSISTANT PROFESSOR** level, beginning 26 August 1991. Ph.D. in organic chemistry with research experience. All specialties will be considered, but experience in the areas of polymers or synthetic organic chemistry is desirable. Teaching duties will include organic lectures and laboratories. The candidate must also establish and maintain a vigorous research program. Collaboration with current faculty in the biomedical area is possible. The involvement of talented senior students in faculty-directed research is strongly encouraged. Submit curriculum vitae, three letters of recommendation, and a brief statement of research interests and plans to: **J. K. Cashion, Chairperson, Department of Chemistry, University of Wisconsin-Parkside (UWP), Wood Road, Box 2000, Kenosha, WI 53141.** Applications should be received by 1 February 1991. *UWP is an Equal Opportunity/Affirmative Action Employer. Racial and ethnic minorities, women, and handicapped persons are encouraged to apply.*

### VISITING ASSISTANT PROFESSOR

A position is available for up to 5 years (beginning immediately) to participate or collaborate in the investigation of molecular mechanisms of transcriptional regulation in yeast and to teach an undergraduate fundamental genetics laboratory course one semester each year. Our research currently focuses on factors that are suspected to interact with enhancer-like sequences. The successful applicant will be interested in pursuing this project or a related project of mutual interest, using molecular, biochemical, and genetic tools. Applicants should send a cover letter with a brief statement of research interests and teaching experience, complete curriculum vitae, relevant reprints, and names and addresses of three references to: **Genetics Search Committee, c/o Dr. Jan Fassler, Department of Biology, University of Iowa, Iowa City, IA 52242. The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and underrepresented minorities are especially encouraged to apply.**

**COMPUTATIONAL CHEMIST.** The Department of Chemistry at Texas A&M University invites applications for a tenure-track faculty position in computational chemistry at the **ASSISTANT PROFESSOR** level, to begin in September 1991. Consideration will also be given to appointment at the associate professor or professor levels for more experienced candidates. The appointee will be expected to establish and maintain a vigorous research program involving the application of theoretical and computational methods to problems in organic and biological chemistry, and to teach at the undergraduate and graduate levels. Applicants must have a Ph.D. degree in chemistry or a related discipline and, preferably, 1 or 2 years of postdoctoral experience. Interested persons should send curriculum vitae and an outline of research plans and arrange for three letters of reference to be sent to: **Professor Michael B. Hall, Head, Department of Chemistry, Texas A&M University, College Station, TX 77843.** Applications should be received no later than 15 January 1991. *Texas A&M University is an Equal Opportunity/Affirmative Action Employer.*





Wayne State University

## FACULTY POSITIONS

The **Department of Biological Sciences** is undertaking a major development effort, including the occupation of a new Biological Sciences Building in Spring, 1991 and the recruitment of a significant number of new faculty over the next 4 years. The establishment of several new teaching and research initiatives for graduate and undergraduate students includes a graduate Molecular Biotechnology Program and a Howard Hughes Undergraduate Education Initiative in cell and molecular biology. We invite applications for three tenure-track faculty positions at the **Assistant or Associate Professor** level, to begin in August, 1991, in the following broad areas:

### MICROBIOLOGY/MOLECULAR GENETICS MOLECULAR CELL BIOLOGY NEUROBIOLOGY

Applicants should have a doctoral degree and suitable postdoctoral experience. Successful candidates will be expected to teach at the undergraduate and graduate levels and to establish extramurally-funded research programs. **WOMEN AND MINORITY CANDIDATES ARE ENCOURAGED TO APPLY.** Review of candidates will begin January 15, 1991 and continue until suitable candidates have been identified. Send curriculum vitae, including a one-page statement of research interests, and the names of at least three references to:

**Dr. P. Dennis Smith, Chairman**  
Faculty Search Committees  
Department of Biological Sciences  
Wayne State University  
Detroit, Michigan 48202

*Wayne State University is an Equal Opportunity/Affirmative Action Employer*



## Eldridge Reeves Johnson Professorship

The University of Pennsylvania School of Medicine invites nominations and applications of outstanding scientists to fill a newly created professorship named and supported by the Eldridge Reeves Johnson Foundation. The Foundation, established in 1929, has a distinguished record of contributions to medical physics and biophysical technology. The successful candidate will be active in the area of Biomolecular Structure and Function. In addition to a faculty appointment in the Department of Biochemistry and Biophysics, the individual will have the opportunity to participate in developing a group of outstanding scientists and students in the area of molecular biophysics.

The University is an equal opportunity affirmative action employer. Women and minority candidates are encouraged to apply.

Please submit nominations or self-applications to:

**Franz M. Matschinsky, M.D.**  
Chairman, Johnson Professorship  
Search Committee  
University of Pennsylvania  
School of Medicine  
414 Anatomy-Chemistry Building  
3600 Hamilton Walk  
Philadelphia, PA 19104-6059



## BIOCHEMIST/ENZYMOLOGIST

### Mechanism Based Drug Discovery

The department of Biochemical Parasitology in the Merck Sharp & Dohme Research Laboratories has an immediate opening for a Senior Research Biochemist interested in exploring new metabolic pathways as potential chemotherapeutic targets for the treatment and prevention of parasitic diseases.

Primary responsibilities include isolation and characterization of soluble and membrane associated enzymes and the design of screens for the discovery of novel antiparasitic agents. This position offers a unique opportunity to interact with a team of scientists in various disciplines focused on developing new chemotherapeutic agents.

The position requires supervisory experience, a Ph.D. in Biochemistry, and at least 4 years of postdoctoral experience in a relevant field of biochemistry. Superior skills in enzymology and protein purification are essential. The applicant's practical skills should be complemented by a high level of initiative and superior communication skills.

Merck Sharp & Dohme Research Laboratories is located in Rahway, New Jersey approximately 25 miles from New York City. Our facilities are state-of-the-art and our renowned research environment is excellent. For consideration, please send your resume with the names of three references to **Human Resources Manager, Merck & Co., P.O. Box 2000, WBC-155, Dept. S-12, Rahway, NJ 07065.**

*An equal opportunity/affirmative action employer m/f/v/h*



**Merck & Co., Inc.**



## The University of Sydney

AUSTRALIA

### LECTURESHIP (FIXED TERM)

School of Physics

Reference No. 44/04

The Chatterton Astronomy Department within the School of Physics is in the process of commissioning the new Sydney University Stellar Interferometer (SUSI). SUSI is an optical interferometer of unprecedented angular resolving power with baselines covering the range 5-640 m and a limiting sensitivity of approximately 8th magnitude. It is capable of undertaking a wide range of programs in stellar astrophysics. An experimental physicist/astrophysicist is required to participate in the stellar interferometer program.

The appointee will be required to participate in the general teaching programme of the School of Physics at the undergraduate and postgraduate levels, to participate in the operation and development of the stellar interferometer, and to carry out research in stellar astrophysics.

Further information from Professor J. Davis, School of Physics 612 692 3604.

This appointment will be for a fixed term from January 1991 to 31 December, 1993.

**Salary range:** \$A33,163-\$A43,096 p.a.

**Closing:** 25 January, 1991.

**Method of Application:** Applications, quoting Reference No., and including curriculum vitae, list of publications and the names, addresses and fax. nos., of three referees (only three referees will be contacted in the first instance and if more referees are nominated they should be ranked in order of preference) to the Registrar, Staff Office, University of Sydney, NSW 2006, Australia, by the above closing date.

*Equal employment opportunity and no smoking in the workplace are University policy.*

63790



# Molecular Biologists

**Du Pont Merck Pharmaceuticals** has 2 challenging openings in the Molecular Biology Department in its Receptor Biology Group.

## Molecular Biology Scientist

Candidate must have experience in a full range of recombinant DNA techniques to perform research on the cloning, expression and structure-function relationships of cellular receptors. The successful candidate should also possess an MS degree in Molecular Biology, Biology or Biochemistry with three or more years of laboratory experience and a demonstrated ability to conduct independent research. Experience with protein electrophoresis, immunochemical techniques and tissue culture is helpful. Exceptionally qualified candidates with BS degrees will also be considered.

## Postdoctoral Visiting Scientist

Candidate will focus on purification, cloning, structure-function relationships and signal transduction mechanisms of cellular receptors. Applicants should have a PhD in Biochemistry, Immunology or Molecular Biology and publications dealing with receptor isolation, cloning and/or functional analysis. The appointment is for a period of one year, renewable for a second year upon mutual agreement.

**Consider** an innovative company that has strong concern for both its employees and our environment. Consider Du Pont. You'll find a stimulating environment at our Wilmington, Delaware location which offers a wide range of academic, cultural and recreational activities. Qualified candidates for both positions should send a curriculum vitae and three letters of recommendation, indicating position of interest to: Du Pont Human Resources, Room PSS-0031, Wilmington, DE 19898.



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*Schering*

# ***Veterinary Pathologist***

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***Take action  
contributing to new R&D  
developments.***

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As a \$3+ billion health care leader, we create pharmaceuticals that enhance, improve and prolong life for both humans and animals. Our dedication to discovery has led to innovations that have won Schering-Plough top recognition around the world. As part of Schering-Plough's Safety Evaluation Center, you will have the responsibility for the drug safety program supporting all Schering-Plough Animal Health product registrations. This will entail ensuring the timely planning, execution, reporting and interpretation of appropriate animal and environmental toxicology studies and integration of study results with information from other functions, such as drug metabolism and pharmacokinetics.

Successful candidate will possess a DVM and Ph.D., along with ACVP-board certification and at least 3 years of relevant experience in toxicologic pathology. Desirable work experience includes investigations involving livestock and/or companion animal species, interaction with governmental regulatory authorities, especially the FDA Center for Veterinary Medicine, and project management responsibilities (sponsor's representative) for studies conducted at contract laboratories.

We will reward your achievements with an excellent salary and outstanding benefits package. For immediate consideration, please forward your resume with salary requirements to: Mr. R. Blackburn, Schering-Plough Research, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

***What you have in mind, we put into action.***



Schering-Plough



# DOCTORAL PROGRAM IN PHYSIOLOGY AND NEUROBIOLOGY

Prospective Graduate Students and Post-doctoral Trainees are invited to apply to the Program in Physiology and Neurobiology jointly administered by Rutgers University and The University of Medicine and Dentistry of New Jersey—Robert Wood Johnson Medical School. Scientists are located at the Robert Wood Johnson Medical School, Rutgers University, and the new Center for Advanced Biotechnology and Medicine. Facilities are located on the scientific Busch Campus in the New Brunswick/Piscataway area. Representative research areas include molecular neurobiology, developmental neurobiology, cellular neurobiology, systems biology, and the relationship of biology to behavior and mentation. Tuition remissions and stipend support will be offered to outstanding candidates for the graduate student positions.

For information and application forms contact:

**Dr. Ira B. Black, Chairman**  
**Department of Neuroscience**  
**and Cell Biology**  
**UMDNJ—Robert Wood Johnson**  
**Medical School**  
**676 Hoes Lane**  
**Piscataway, NJ 08854-5635**  
**(201) 463-5388**

RU and UMDNJ are Affirmative Action/Equal Employment Opportunity Employers, M/F/H/V, and UMDNJ is a member of the University Health System of New Jersey.



## THE INTERNATIONAL RICE RESEARCH INSTITUTE (IRRI)



**seeks three (3) Agricultural Scientists  
for assignment to Egypt**

The successful candidates (one of whom will be the team leader) will work in collaboration with Egyptian national scientists and officers of the Rice Research and Training Center. All must have demonstrated ability to work as members of interdisciplinary teams and must be fluent in English.

### **Agronomist (Weed Science)**

*Duties:* Collaborate with Egyptian rice scientists in the design, implementation and analysis of on-station and on-farm research leading to the development of improved weed management techniques, particularly for direct-seeded rice. Determine the distribution and importance of weeds in different rice environments. Study the effect of shifting from transplanting to direct seeding on weed species composition. Develop economically-viable management practices for improved weed control in rice. Provide on-the-job training to Egyptian rice scientists in weed science research.

*Qualifications:* Ph.D. in agronomy or related field and at least 5 years experience in weed science research.

### **Agronomist (Soil Fertility Improvement)**

*Duties:* Collaborate with Egyptian rice scientists in the design, implementation, and analysis of on-station and on-farm research leading to development of practices for soil fertility improvement in rice-based farming systems with emphasis on direct-seeded rice. Identify and resolve soil fertility constraints to rice yields on saline/alkaline soils. Develop and evaluate fertilizer practices in association with improved water use efficiency. Provide on-the-job training to Egyptian rice scientists in agronomic research to improve soil fertility.

*Qualifications:* Ph.D. in soil science or related field and at least 5 years experience in soil fertility research.

### **Plant Breeder**

*Duties:* Collaborate with Egyptian rice scientists in rice varietal improvement research. To generate, evaluate, and select improved rice varieties with high yield potential, resistance to insect pests and diseases, and tolerance for soil salinity/alkalinity. Provide on-the-job training to Egyptian rice breeders in the approaches and techniques of rice varietal improvement.

*Qualifications:* Ph.D. in plant breeding or related field and at least 5 years experience in varietal improvement.

IRRI is an international, non-profit, donor-funded agricultural research institute that undertakes research and training at its headquarters in the Philippines and collaborates with national agricultural systems worldwide. IRRI's goal is to develop more productive and sustainable rice technology and to strengthen national research capability. Salary and benefits will be commensurate with those of similar international institutions and programs in agriculture.

*Application:* Applications for the positions described will be accepted until 31 December 1990. Please submit curriculum vitae, date of availability, and the names of three referees to:

**Dr. Klaus Lampe, Director General**  
**IRRI, PO Box 933, 1099 Manila, Philippines**  
**FAX: 63-2-817-8470. TELEX: 40890 RICE PM or**  
**22456 IRI PH**



## POSITIONS OPEN

**ASSISTANT PROFESSOR IN BEHAVIORAL NEUROSCIENCE.** The Neuroscience Program and the Psychology Department at Princeton University has a position open for the fall of 1991. The position involves teaching and research and is open to any area of neuroscience with an emphasis on behavior or function. Send curriculum vitae, a one-page research description, and three letters of recommendation to: **Chair, Neuroscience Search Committee, Code NB, Department of Psychology, Princeton University, Princeton, NJ 08544-1010.** Applications preferred by 15 February 1991. *Princeton University is an Equal Opportunity/Affirmative Action Employer.*

## VERTEBRATE ANATOMY/PHYSIOLOGY

**ASSISTANT PROFESSOR.** Tenure-track position (pending funding). Doctorate required; teaching and postdoctoral experience preferred. Primary teaching duties will be human anatomy and physiology as well as courses in candidate's specialty. Candidate is expected to establish a research program and to participate in the graduate program. Candidates will be evaluated on their ability to complement the existing faculty specialties; neurobiologists, functional morphologists, or mammalogists are encouraged to apply. Submit résumé, transcripts, statement of teaching philosophy, research plans, and three references by 1 January 1991 to: **Dr. Bonnie Sampsell, Chairman, Biology Department, State University College at Buffalo, 1300 Elmwood Avenue, Buffalo, NY 14222.** *Buffalo State College is an Equal Opportunity/Affirmative Action Employer.*

## CALIFORNIA INSTITUTE OF TECHNOLOGY

The Computation and Neural Systems (CNS) program at Caltech is conducting a search for a tenure-track **ASSISTANT PROFESSOR** on the engineering side of CNS, for which the term of initial appointment is normally four years. CNS is an interdisciplinary Ph.D. program established in 1986 that brings together engineers and scientists who are applying ideas from neurobiology to the development of new computational devices and systems and biologists who are investigating how computation is done in the nervous system. Areas of interest include motor control, learning, speech, vision and artificial neural networks. The appointee will be expected to develop a strong research activity and to teach courses in his or her specialty. Applicants should send a résumé, including list of publications; a brief statement of research accomplishments and goals; and the names of at least three references to: **Professor Y. Abu-Mostafa, Caltech 116-81, Pasadena, CA 91125.** *Caltech is an Equal Opportunity Employer and it specifically encourages women and minorities to apply.*

## ASSISTANT/ASSOCIATE PROFESSOR OF ASTRONOMY

The Interdisciplinary General Arts and Sciences Program at Arizona State University West invites applications for an assistant/associate professor of astronomy. A Ph.D. in astronomy, an excellent research record, and successful teaching experience at the university level is required. Appointment as associate with teaching, publications, and record of continuing professional and scholarly achievement. Administrative experience at the departmental level or above and successful funding history for research or curriculum development would be an asset.

This individual will teach upper-division courses in astronomy and develop with other faculty a new interdisciplinary program in arts and sciences. The person will be expected to develop and participate in team-teaching a seminar which integrates ideas from the humanities and the sciences. Because this new degree program is aimed at returning adult learners, prior experience working with this population would be an additional asset.

Letter of application addressing teaching philosophy, scholarly development and area of research, and curriculum development experience; curriculum vitae; and names and addresses of three references are due by 15 December 1990. Send materials to:

**Thomas V. McGovern**  
Director of Arts and Sciences  
Arizona State University West  
4701 West Thunderbird Road  
Phoenix, AZ 85069-7100

*ASU West is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR, BIOCHEMISTRY.** The Department of Biochemistry at the University of Vermont seeks to fill a full-time (12-month appointment), tenure-track faculty position at the level of assistant professor. Applicants with a commitment to graduate/medical student education, collaborative research interactions with university faculty, and a vigorous independent research program are encouraged to apply. Individuals with postdoctoral research experience and an interest in one of the following three subject areas will be given special consideration: (i) cellular receptors; (ii) gene regulation/development, emphasis on DNA:protein interactions; or (iii) mammalian virology. The department, located within the College of Medicine, has strong interactions with allied departments and is an active participant in institutional teaching and research programs in the areas of cancer biology, cell and molecular biology, thrombosis and hemostasis, pulmonary biology, and biotechnology. The 425-acre main campus of the University of Vermont is located beside Lake Champlain, between the New York Adirondack and Vermont Green Mountains, and resides within a community of about 80,000 people. Interested individuals should send a résumé, a description of career goals and research interests, and names of three references to: **Dr. George L. Long, Department of Biochemistry, College of Medicine, University of Vermont, Burlington, VT 05405.** *Women and people from diverse racial, ethnic, and cultural backgrounds are encouraged to apply.* Applications will be accepted until 1 March 1991. *The University of Vermont is an Affirmative Action/Equal Opportunity Employer.*

## UNIVERSITY OF MICHIGAN PALEOBOTANIST

The Department of Biology and Museum of Paleontology invite applications for a joint tenure-track position in paleobotany. We seek applicants with broad research and teaching interests in paleobiology and expertise in the systematics of fossil plants. Ph.D. is required. We anticipate appointment will be made in 1991 at the **ASSISTANT PROFESSOR** level. Successful candidate will be expected to participate in undergraduate teaching programs of the Department of Biology, train graduate students, and develop a vigorous extramurally supported research program in the museum. This appointment involves curatorial responsibility for a major paleobotanical research collection. Current faculty in paleontology are D. C. Fisher, M. Foote, P. D. Gingerich, and G. R. Smith. University resources include strong programs in organismic and evolutionary biology and in sedimentary geology. Send résumé, brief statement of research interests, and names of five people we can contact for letters of recommendation to: **Professor Philip D. Gingerich, Search Committee Chair, Museum of Paleontology, The University of Michigan, Ann Arbor, MI 48109-1079.** Closing date for applications is 31 January 1991. *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.*

## INSTRUCTOR OR ASSISTANT PROFESSOR RADIATION ONCOLOGY

Facilities located in a new cancer hospital, occupying 30,000 square feet, includes three linacs, plus dedicated intraoperative linac, hyperthermia, HD remote afterloading, dedicated CT scanner, two simulators, conventional and two 3-D treatment planning workstations. Requirements: Board-eligible with demonstrated interest in academic medicine. Send résumé to: **Dr. Reinhard A. Gahbauer, Radiation Oncology, Arthur James Cancer Hospital and Research Institute, The Ohio State University, 300 West 10th Avenue, Columbus, OH 43210.**

**CLINICAL MICROBIOLOGIST.** Laboratory Medicine Department, Yale University, recruiting an **ASSISTANT OR ASSOCIATE PROFESSOR** in microbiology at Yale New Haven Hospital. Successful candidate must establish independent research program, participate in managing laboratory, teach residents/medical students. Prefer applicants to be Board-certified or Board-eligible in clinical pathology and/or medical microbiology with M.D. and/or Ph.D. Send curriculum vitae and three references to: **Stephen Edberg, Ph.D., Chairman, Search Committee, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510** before 15 January 1991. *Yale is an Equal Opportunity/Affirmative Action Employer. Women and minority applicants encouraged.*

## POSITIONS OPEN

**ASSISTANT/ASSOCIATE PROFESSOR.** Biology tenure-track position. Available September 1991. The joined Biology Department of Manhattan College/College of Mount Saint Vincent seeks a geneticist/molecular biologist for teaching introductory genetics courses and a graduate level course in molecular biology. Ph.D. required. Send curriculum vitae, statement of teaching philosophy, and three letters of recommendation by 1 January 1991 to: **Dr. William A. Tramontano, Chair, Department of Biology, Manhattan College/College of Mount Saint Vincent, Riverdale, NY 10471.** *Women and minorities encouraged to apply. An Affirmative Action/Equal Opportunity Employer.*

Arizona State University (ASU) West, a growing upper division and graduate campus in the ASU system, seeks applications for positions at the **ASSISTANT AND/OR ASSOCIATE LEVELS** in ecology and evolutionary biology. Ph.D. required for associate professor along with teaching and publication requirements at the associate level. Teaching responsibilities will include instruction of undergraduate majors, nonmajors, and graduates. A special interest in interdisciplinary undergraduate instruction is desired. Scholarly interests and research should address issues related to, or that connect naturally with, south western systems. Teaching, salary, and start-up packages are competitive with other state research universities. Though not required, some postdoctoral and/or advanced experience is desired for assistant-level appointments. To facilitate both research and teaching, a Center for South Western Ecology is being planned.

- **Vertebrate Physiological Ecology**, with a focus on, or interests that connect naturally with, south western systems. Research should have an evolutionary emphasis and a strongly quantitative approach.

- **Ecological Genetics**, with a focus on, and/or empirical and theoretical interests that connect naturally with, south western systems. Research should have an evolutionary emphasis, utilize current methodologies, and have a strongly quantitative approach.

By 4 January 1991, please send (i) letter of application, that addresses experience, interests, and goals, and that specifies the exact title of the position sought, (ii) curriculum vitae, (iii) no more than five representative publications, and (iv) three letters of recommendation to:

**Coordinator  
Life Sciences Program  
Arizona State University West  
P.O. Box 37100  
Phoenix, AZ 85069-7100  
Telephone: 602-543-6000**

*ASU West is an Equal Opportunity and Affirmative Action Employer.*

## INFECTIOUS DISEASES FACULTY POSITIONS

The University of California, Los Angeles (UCLA), Division of Infectious Diseases, Department of Medicine, at the UCLA Center for the Health Sciences in Westwood is recruiting two tenure-track faculty members at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. The positions include independent laboratory space and equipment, start-up funds, and protected time. Applicants must be Board-certified in internal medicine and Board-eligible or -certified in infectious diseases. Applicants must be prepared to establish an independent research program in one of the following areas: (i) intracellular parasitism, host-bacterium interaction, or host-parasite interaction; or (ii) retrovirology or basic AIDS research. Applicants must have a minimum of 3 years of full-time experience in basic laboratory investigation, acquired state-of-the-art skills in cell biology, immunology, biochemistry, or molecular biology, and published at least one first-authored paper in a prestigious peer-reviewed laboratory research-oriented journal. Send curriculum vitae; three copies of all papers, abstracts, manuscripts in press, and manuscripts submitted (optional); statement of future research interests; and three letters of recommendation to: **Infectious Diseases Search Committee I (Intracellular Parasitism etc.) or II (Retrovirology/AIDS), c/o Marcus A. Horwitz, M.D., Chief, Division of Infectious Diseases, Department of Medicine, UCLA School of Medicine, Center for the Health Sciences, 37-121, Los Angeles, CA 90024-1688.** All materials should be sent by 31 December 1990 or as soon as possible thereafter. *The UCLA School of Medicine is an Equal Opportunity/Affirmative Action Employer.*



# Bioprocess Development Opportunities At The Forefront Of Medical Research

The Medical Research Division of American Cyanamid Company is recognized internationally as a leader in the research and development of therapeutic compounds. Our products have been instrumental in the treatment of infectious diseases, cancer, cardiovascular and central nervous system diseases. To build upon our strengths and create an environment that will foster an even stronger and more dynamic R&D organization, we seek outstanding scientists for our Fermentation Development Department.

## Group Leader-Microbiology

The technical responsibilities of this position relate to the conception, development and improvement of microbially-based processes for the production of a variety of human and animal health products such as antibiotics, recombinant DNA-derived proteins, enzymes and other compounds with unique biological or chemical activities.

The individual we are seeking will have direct supervisory responsibility for a group of 10-12 scientists and technicians working in several project areas including microbial physiology and biochemistry, genetics, molecular biology and biotransformation. The successful candidate must be able to work effectively within a multidisciplinary project team environment with protein, organic, and analytical chemists and process engineers.

To qualify for this highly visible position, a Ph.D. in Microbiology, or a closely related field is required as is several years of postdoctoral experience, preferably within industry.

Previous supervisory responsibility is necessary. (Dept. DS)

The Lederle logo, featuring the word "Lederle" in a stylized, cursive font inside an oval shape.

## Protein Biochemists

The Biochemistry Group has two openings for Ph.D. scientists experienced in protein isolation and characterization. These individuals will have responsibility for the isolation and purification of recombinant and naturally-produced proteins from biological processes and will provide technical support to the Biochemical Engineering Department for large-scale downstream processing. The development and implementation of analytical assays for protein characterization are also required. A minimum of two years postdoctoral training is necessary. Additional industrial and large-scale processing experience is desirable. (Dept. VD)

## Bioanalytical Chemist

The Analytical Development Group has an opening for a Ph.D. scientist to establish procedures and methods for the characterization and quantification of antibiotics, proteins and other bioactive molecules. The application of bioanalytical technologies to improve and optimize biological processes will also be required. A background in microbiology and biochemistry is desirable. Postdoctoral experience is preferred. (Dept. FB)

All positions offer competitive salaries and excellent benefits and are located at the Lederle Laboratories Campus of American Cyanamid in Rockland County, just twenty-five miles north of New York City. For immediate consideration, please send your resume/c.v. with salary requirements indicating the department code for the position of your choice to: Professional Employment Representative, Lederle Laboratories, 401 N. Middletown Road, Pearl River, New York 10965. An Equal Opportunity Employer m/f.

**Dedicated People Dedicated To People Since 1906.**



## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR INFECTIOUS DISEASES

The ID Section at Hospital of the University of Pennsylvania has openings for assistant and associate professors who are Board-certified/Board-eligible in ID. Applicants must have excellent capabilities in basic science research. Qualified individuals with interests in all ID-related areas of investigation are invited to apply. Particular emphasis in recruiting will be placed on individuals experienced in herpesviruses, retrovirology, and bacterial pathogenesis. Clinical responsibilities include conducting attending rounds in ID and Internal Medicine for a total of 2 to 3 months yearly. Send curriculum vitae to: **Harvey Friedman, M.D., Chief, Infectious Diseases, 536 Johnson Pavilion, University of Pennsylvania, Philadelphia, PA 19104-6073. Equal Opportunity/Affirmative Action Employer.**

**BIOLOGY.** Two tenure-track positions to begin 1 September 1991. (i) **ASSISTANT OR ASSOCIATE PROFESSOR.** Vertebrate or invertebrate physiology or related area. (ii) **ASSISTANT PROFESSOR.** Molecular or cellular biology. Ph.D. required. Teach upper division courses in specialty as well as introductory courses. Teaching in interdisciplinary programs, collaboration with medical and engineering faculties, research involving undergraduates are all possibilities. Send curriculum vitae, a statement of teaching and research interests, and three letters of recommendation to: **John D. Shepherd, Biology Department, College of Liberal Arts, Mercer University, Macon, GA 31207. We are especially interested in women and minority candidates. Affirmative Action/Equal Opportunity Employer. Application deadline: 4 January 1991.**

### NEUROBIOLOGY/CELL BIOLOGY

Applications are invited for two tenure-track or tenured positions at **ASSISTANT TO FULL PROFESSOR** levels. Available 1 September 1991. Candidates should have a Ph.D., M.D., or equivalent degree, and have demonstrated ability to conduct independent research and attract extramural funding. All areas of specialization are encouraged to apply, although special consideration will be given to those interested in cellular developmental biology, membrane structure and function, neural plasticity, and regeneration. The candidates will be expected to participate in team teaching of tissue biology or neuroanatomy to medical students. Applicants should submit curriculum vitae, a brief statement of research interests, representative reprints, and names of three references by 31 January 1991 to: **Dr. George D. Pappas, Search Committee, Department of Anatomy and Cell Biology, University of Illinois, College of Medicine at Chicago, P.O. Box 6998 (M/C 512), Chicago, IL 60680.**

*The University of Illinois is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.*

### UNIVERSITY OF VICTORIA MYCOLOGY/PLANT PATHOLOGY

The Department of Biology, University of Victoria, is seeking as a tenure-track **ASSISTANT/ASSOCIATE PROFESSOR**, a person with expertise in mycology and/or plant pathology, with preference given to a candidate carrying out research in the area of molecular/cellular biology of fungi. The successful applicant will be expected to teach mycology in our lower-level core botany course and to provide more specialized instruction related to the candidate's area of expertise in our upper-level program. The deadline for applications is 31 January 1991. Applicants must send their curriculum vitae, at least one copy each of two recent publications, a description of research interests, and names of at least three referees who can be contacted to:

**Dr. Louis A. Hobson, Chair  
Department of Biology  
University of Victoria  
P.O. Box 3045  
Victoria, BC, Canada V8W 2Y2**

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

## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR IMMUNOLOGIST

The Department of Pathology, Brigham and Women's Hospital and Harvard Medical School, invites applications for a faculty position at the rank of assistant or associate professor. Outstanding applicants with expertise in molecular immunology, transcriptional regulation, and lymphocyte differentiation and activation are encouraged to apply. Applicants should have a Ph.D. and/or M.D. degree and have completed postdoctoral training. Send curriculum vitae, list of publications, description of research interests, and names of three referees to: **Dr. A. K. Abbas, Department of Pathology, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. The hospital is an Equal Opportunity Employer.**

### ENDOWED CHAIR IN HUMAN NUTRITION

Applications are being accepted for the Lillian Fountain Smith Chair in Human Nutrition in the Department of Food Science and Human Nutrition at Colorado State University (CSU). The individual should be a senior person with established credentials appropriate for appointment as a full professor. It is expected that the chair will develop strong research and teaching programs related to human nutrition and have demonstrated ability to obtain outside funding. Ph.D. or M.D. degree is required. Appointment with tenure will be on an academic year basis with the expectation that the person will seek summer funding.

Application deadline is 15 January 1991 with anticipated starting date of 20 August 1991. *CSU is an Equal Opportunity Employer.* Application letters including curriculum vitae and names of four references should be submitted to: **Endowed Chair Search Committee, Department of Food Science and Human Nutrition, Colorado State University, Fort Collins, CO 80523.**

**CHAIRPERSON, PHYSIOLOGY.** The Medical College of Pennsylvania invites applications and nominations for the position of Chairperson, Department of Physiology.

The department has recently been formed and has been targeted for significant expansion in personnel and space. This is an excellent opportunity for a leading scientist to develop a nationally recognized research and training program. The medical college seeks a distinguished educator with an established record of scientific productivity and ability to secure external funding, along with excellence as a teacher and leader. Cell or membrane physiology and molecular biology are areas of particular interest. A letter of interest or nomination, curriculum vitae, and the names of at least three references should be sent to: **Alan S. Bellack, Ph.D., Chair, Physiology Search Committee, Department of Psychiatry, The Medical College of Pennsylvania, 3200 Henry Avenue, Philadelphia, PA 19129. Equal Opportunity/Affirmative Action Employer.**

### CHAIR DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

Morehouse School of Medicine (MSM) invites applications and nominations for the position of professor and chair, Department of Microbiology and Immunology, which will become vacant in 1991 due to the impending retirement of the current chair. The department has recent funding including that for AIDS research and is part of a rapidly expanding, 4-year medical school dedicated to the training of minority physicians. Applicants are expected to have a record of significant research achievement, extramural funding, and substantial administrative/teaching skills. Experience in immunology is preferred. Applications/nominations should be submitted by 15 February 1991 to: **Catherine S. Chew, Ph.D., Chair, Microbiology/Immunology Search Committee, Morehouse School of Medicine, 720 Westview Drive, S.W., Atlanta, GA 30310-1495.**

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

## POSITIONS OPEN

**ENVIRONMENTAL HEALTH SCIENTIST/DEPARTMENT CHAIR.** Department of Environmental Health, East Tennessee State University, academic year, tenure-track, associate/full professor. Rank and salary commensurate with qualifications and experience; fall 1991. Minimum qualifications include a Ph.D. in environmental health science or closely related field with administrative experience in higher education and eligibility for certification by a related professional board. Willingness to teach undergraduate and graduate students as necessary. Must be capable of integrating talents of both environmental and public health scientists. Evidence of strong established scholarly research activity and a record of outstanding extramural grant support required. Must lead and coordinate a department of seven faculty, 160 undergraduates, and 60 graduate students, in a variety of areas of concentration.

Send current curriculum vitae; names, addresses, and telephone numbers of five references; and documentation of current grant funding and research to: **Dr. Guy R. Lanza, Dean, School of Public and Allied Health, East Tennessee State University, Box 21190-A, Johnson City, TN 37614.** The deadline for receiving completed applications is 15 March 1991. *An Equal Opportunity/Affirmative Action Employer.*

### MANAGER OF BIOLOGICAL DATABASE SYSTEMS

The Arnold Arboretum, the Harvard University Herbaria, and the Museum of Comparative Zoology of Harvard University seek an individual who will work with the scientific staffs of these institutions to develop and manage databases and networking activities related to their collections. She/he will be responsible for long-range planning for and acquisition of hardware and software, as well as for network connectivity for the biological specimen data resources in organismic biology. The individual will develop proposals for external funding for development of database systems. As much as one third time could be devoted to externally funded research in systematics or information technology. Strong preference for a Ph.D. in biological systematics or related fields and experience with biological accession data. Experience with university computing operations, UNIX systems, and TCP/IP-based network communications is essential. Send letter of interest, résumé, and three letters of reference to: **Dr. Robert E. Cook, Director, Arnold Arboretum, 125 Arborway, Jamaica Plain, MA 02130.**

### CURATORSHIP ARTHROPOD SYSTEMATICS AMERICAN MUSEUM OF NATURAL HISTORY

The American Museum of Natural History invites applications for a tenure-track curatorial position in its Department of Entomology. The primary responsibility of the position is high productivity in original research on the systematics of insects, arachnids, or myriapods. The area of research specialization is otherwise unrestricted; salary and rank will be commensurate with experience.

Other responsibilities of the position include, but are not limited to, (i) curation of part of the department's collections of 16.7 million specimens, (ii) participation in the department's joint graduate student training programs with Cornell University and the City of University of New York, (iii) participation in museum committees and exhibition programs, (iv) supervision of departmental support staff, and (v) future service, on a rotating basis, as departmental chairperson. The position will be available beginning July 1991. A Ph.D. (or equivalent) and demonstrated success in, or potential for, attracting external research funding are required.

Applicants should forward (i) a statement of research interests and goals, (ii) curriculum vitae with complete bibliography and reprints, and (iii) names, addresses, and telephone numbers of at least three evolutionary biologists familiar with the applicant's qualifications and accomplishments. Applications must be submitted by 31 January 1991 to:

**Dr. Norman I. Platnick, Chairman  
Department of Entomology  
American Museum of Natural History  
Central Park West at 79th Street  
New York, NY 10024**

*An Equal Opportunity Employer.*



**Faculty Position  
in  
ANIMAL MOLECULAR VIROLOGY  
Purdue University  
Department of Biological Sciences**

We invite applications for a tenure-track position at the **Assistant or Associate Professor** level. The Department is particularly interested in candidates with research interests in, but not limited to, **virus assembly, virus-host interactions, virus neutralization by antibodies and anti-viral agents directed against the virion**. Candidates must have a Ph.D. degree or equivalent, postdoctoral experience and demonstrate exceptional promise in research. The successful applicant is expected to develop a vigorous, extramurally-funded research program, to participate in teaching a course in a relevant discipline, and to participate in graduate training. The appointment offers an excellent opportunity to join an expanding program in molecular virology and to join eleven other faculty members in the Markey Center for Structural Biology.

Applications, including a curriculum vitae, names and addresses of at least three references, a statement of current research activities and a description of future plans should be sent to:

**Professor John E. Johnson, Chair  
Markey Faculty Search Committee  
Department of Biological Sciences  
Purdue University  
West Lafayette, Indiana 47907 U.S.A.**

Applications will be accepted until January 1, 1991, or until a suitable candidate is identified. *Equal Opportunity/Affirmative Action Employer.*

**President  
Science Service Incorporated  
Washington, DC**

Science Service, Inc., invites nominations and applications for the position of President. Founded in 1921, Science Service is a not-for-profit organization devoted to increasing public understanding of science, informing society's leaders of new developments in science and encouraging precollege students to become involved in scientific research. Among its many activities, Science Service publishes *Science News* and administers the Westinghouse Science Talent Search.

Candidates must have demonstrated an understanding of and commitment to science, as well as outstanding management skills. Publishing experience in science also is desirable, as is the capacity to develop proposals and obtain funding for new projects and activities from both government and industry sources. In particular, the trustees are interested in broadening and strengthening Science Service's programs for youth and in exploring opportunities to make use of new media.

Applications and nominations are requested by January 15, 1991. Inquiries, nominations or applications with resumes should be directed to the Chairman of the Search Committee:

**Dr. H. Guyford Stever  
c/o Carnegie Commission on Science & Technology  
1616 P Street, NW, Suite 400  
Washington, DC 20036**

Science Service is an Equal Opportunity Employer. Minorities and women are encouraged to apply.



**ASST./ASSOC.  
PROFESSOR  
OF BIOLOGY**

Tenure-track faculty position in Biology department available Fall, 1991. Ph.D. in Biological Sciences required, with commitment to undergraduate instruction and research. Research field open but preference is for molecular biologist. Primary teaching responsibilities: laboratory course in introductory microbiology and upper-level laboratory course in virology or immunology. Possibility exists of participating in intro freshman sequence and/or teaching classes for non-majors. Please send vitae, letter detailing teaching and research interests and 3 reference letters by January 15, 1991 to: **Dr. Jonathan Yavelow, Department of Biology, RIDER COLLEGE, 2083 Lawrenceville Road, Lawrenceville, NJ 08648. AA/EOE.**

**DIRECTOR**

**WESTERN HEMISPHERE COOPERATION PROJECT**

Nation's leading general science and engineering association, based in Washington, DC., seeks a Director for its Western Hemisphere Cooperation Project (WHC). Director will manage cooperative programs with counterpart organizations in the Western Hemisphere; organize symposia on scientific topics of relevance to the region; monitor special issues in Latin American science; and raise funds to support WHC activities. Director will also serve as official liaison to Interiencia Association, a federation of 14 national scientific organizations in the Americas.

Minimum qualifications include: Master's degree in a field of science or in Latin American studies; 3-5 years' experience in managing international cooperative programs, or a combination of education and related work experience; excellent communication skills; experience in working with grant-making organizations; and "in-country" experience in one or more countries of the Western Hemisphere. Candidate must be fluent in English and be able to communicate effectively in Spanish. A knowledge of Portuguese is desirable. Please send letter expressing interest together with current resume and salary requirement to:

**Debra Wright  
Office of Human Resources, Suite 854  
American Association for the Advancement of Science  
1333 H Street, NW, Washington, DC 20005**

*Closing Date December 31, 1990*

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**Bile Acid Biochemist**

The Section of Biochemical Pharmacology in the Division of Pharmacokinetics and Drug Metabolism has an opportunity available for a scientist to study the enzymology and/or the transcriptional control of proteins involved in cholesterol catabolism/bile acid synthesis, and their role in the regulation of cholesterol homeostasis.

Candidates must have a Ph.D. degree in pharmacology, biochemistry, medicinal biochemistry, or related science; plus one year of postdoctoral experience or one year of experience in cholesterol catabolism/bile acid biosynthesis research, including publications.

As a valued professional at Burroughs Wellcome Co. you will receive a salary commensurate with your experience and be supported by the highest level of benefits in our industry. If you are interested in working for us, submit your resume, indicating position number in your cover letter, by **January 14, 1991, to: Burroughs Wellcome Co., Scientific Recruiting and Staffing, Pos. #62384-4, 3030 Cornwallis Road, Research Triangle Park, NC 27709.**

For information on other job opportunities with Burroughs Wellcome Co., call our Job Information Line at **(919)248-8347.**



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# Scientist

At Genentech, our success in the biotechnology industry is a result of superb personnel combined with a state-of-the-art environment. To continue our achievements, we are seeking a Scientist in our Medicinal and Analytical Chemistry department.

You will conduct research and development for the characterization of recombinant DNA-derived polypeptides. This involves a significant amount of problem solving related to product characterization using both chromatographic and spectroscopic techniques.

A Ph.D. in Biochemistry and at least 2 years of postdoctoral study with a physical or analytical emphasis is required. Experience in the evaluation of protein conformation is highly desirable. The ability to conduct independent research and good communication skills are essential.

Genentech offers an extensive benefits package which includes child care facilities, free health club membership, an employee stock purchase plan and fully paid medical/dental/vision coverage. For immediate consideration, please send your C.V. to Nancy Symonds, Genentech, Inc., Human Resources Dept. NS/ECD, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

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## POSITIONS OPEN

### CHAIRPERSON DEPARTMENT OF ANATOMY AND CELL BIOLOGY

Nominations and applications are invited for the position of professor and chairperson of the Department of Anatomy and Cell Biology at the East Carolina University School of Medicine. The department consists of 14 full-time faculty and is responsible for the education of medical, allied health, and graduate students. The primary research interests are in endocrine physiology/cell biology, and the neurosciences. The department is well funded and well equipped. We are seeking candidates with an outstanding record of research achievement, proven administrative and leadership skills, and a history of achievement, proven administrative and leadership skills, and a history of quality teaching in any of the anatomical disciplines. Candidates should have a doctorate in anatomy or a related discipline, experience in an academic medical center, and a record of scientific excellence. Salary and benefits are nationally competitive. Candidates should submit curriculum vitae and the names and addresses of three references to:

**Dr. Paul V. Phibbs, Chairman**  
Anatomy and Cell Biology Search Committee  
Department of Microbiology and Immunology  
East Carolina University School of Medicine  
Greenville, NC 27848-4354

Screening for this position will begin on 1 January 1991. *An Equal Opportunity/Affirmative Action University. Federal Law requires proper documentation of identity and employability at the time of employment. It is requested that this documentation be included with your application.*

### DIATOM SYSTEMATIST

The Academy of Natural Sciences of Philadelphia seeks an outstanding diatom systematist for the career-track position of **ASSISTANT CURATOR**. Qualifications: (i) Ph.D. in biology, botany, or closely related discipline; (ii) comprehensive knowledge of diatom taxonomy and nomenclature; (iii) good understanding of ecology and community dynamics as they relate to the taxonomy and systematics of freshwater diatoms; (iv) demonstrated excellence at the postdoctoral level in phylogenetic systematics; (v) ability to attract grant support for independent research program. Research capabilities that utilize herbarium collection strengths and complement current programs in floristics, eco-taxonomy, and current cladistic approaches to centric diatom systematics preferred, along with hands-on experience in curation of a diatom herbarium. This position includes opportunities for adjunct appointment and graduate students at local universities, especially The University of Pennsylvania. Send curriculum vitae, statement of research goals, and names and addresses of three references by 15 December 1990 to: **Dr. Charles Reimer, Academy of Natural Sciences, 19th and the Parkway, Philadelphia, PA 19103.** *An Equal Opportunity/Affirmative Action Employer.*

### DEAN OF ARTS AND SCIENCES KANSAS STATE UNIVERSITY

The dean is an advocate and leader for the college, with responsibility for programs, budgets, and personnel. Requirements include a record justifying appointment as a full professor; significant experience in academic administration; effectiveness as an advocate for diverse disciplines; ability to work effectively with alumni; and a concern for students, Affirmative Action, and faculty involvement in governance. The position is open 1 July 1991, and screening begins 15 January 1991.

Send applications to: **M. Duane Nellis, Chair, Search Committee, Anderson Hall 108, Kansas State University, Manhattan, KS 66506** with curriculum vitae and a list of at least three academic references.

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**BIOLOGY FACULTY POSITION;** 1991, fall. Genetics, cell and molecular biology, tenure track. **ASSISTANT PROFESSOR**, beginning September 1991. Earned doctorate required as well as a strong commitment to teaching at the undergraduate level. Apply with résumé, graduate transcript, list of publications, description of research interests and three letters of recommendation by 15 January 1991. Send application to: **Dr. D. J. Schroeder, Department Chair, Biology Department, College of St. Scholastica, 1200 Kenwood Avenue, Duluth, MN 55811.** The College of St. Scholastica is a Benedictine liberal arts college, and an *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### FACULTY POSITION IN BIOCHEMICAL PHARMACOLOGY

The Department of Pharmacology at the University of Alabama at Birmingham invites applications for a position of **RESEARCH ASSISTANT PROFESSOR** to complement faculty with research interests in cancer, AIDS, and AIDS-related opportunistic infection. Send letter of application with curriculum vitae and names of three references to: **Robert B. Diasio, M.D., Chairman, Department of Pharmacology, Box 600, Volker Hall, University of Alabama at Birmingham, Birmingham, AL 35294.** *Equal Opportunity/Affirmative Action Employer.*

### UNIVERSITY OF GUAM

**BIOLOGY FACULTY POSITION. ASSISTANT/ASSOCIATE PROFESSOR** to teach at least two of the following: genetics, cell physiology, biochemistry, developmental biology, plant diversity, and possibly to participate in principles of biology. An initial 3-year contract begins August 1991. Ph.D. required. Minimum starting salary: \$33,634 per academic year. Application deadline: 16 January 1991. Submit letter of application, up-to-date résumé, official graduate degree transcripts sent directly from awarding institution, unofficial copies of undergraduate transcripts, three referees, and research interests to: **University of Guam, Personnel Services, UOG Station, Mangilao, Guam 96923.** *An Affirmative Action/Equal Opportunity Employer.*

**COGNITIVE NEUROSCIENCE.** Dartmouth Medical School is considering four **SENIOR FACULTY APPOINTMENTS** in the broad area of cognitive neuroscience with particular interests centered on neuroanatomy, sensory and motor neurophysiology, and neurobehavior. The new positions will have shared appointments in the Program in Cognitive Neuroscience and in relevant basic science departments. Interested parties should send curriculum vitae to: **Dr. M. S. Gazzaniga, Department of Psychiatry, Dartmouth Medical School, Hanover, NH 03756.**

**BIOLOGY.** Ph.D. and teaching experience required. Responsibilities include teaching, helping revise curriculum, advising students, and serving on university committees. Preference is for a broadly trained person with specialization toward animal/cellular fields. LeTourneau University is an independent evangelical Christian university and seeks trained professionals who possess a maturing Christian faith and are committed to the mission of an evangelical residential, Christian university. Send résumé to:

**Dr. H. Glenn Sumrall**  
Vice-President for Academic Affairs  
LeTourneau University  
P.O. Box 7001  
Longview, TX 75607-7001

### TENURE-TRACK FACULTY POSITIONS CENTER FOR CANCER RESEARCH AND DEPARTMENT OF BIOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Candidates are sought for two tenure-track positions, at the level of **ASSISTANT, ASSOCIATE, OR FULL PROFESSOR**, in the fields of cell biology and immunology.

Candidates should have significant research accomplishments and should be developing creative approaches to significant problems in contemporary cell biology and immunology, including the biochemistry and molecular biology of cell cycle control and proliferation, cytoplasmic organization, antigen recognition, and intracellular signaling. Faculty members in the cancer center conduct active research programs, and participate in the educational activities of the biology department.

Interested applicants are asked to send curriculum vitae and bibliography, a brief description of research interests, and the names of at least three references to:

**Dr. Frank Solomon**  
Professor of Biology  
Cancer Center Search Committee Chairperson  
Building E17-220  
Massachusetts Institute of Technology (MIT)  
Cambridge, MA 02139

*MIT is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are encouraged to apply.*



## POSITIONS OPEN

### FACULTY

**ENVIRONMENTAL SCIENCE.** The Department of Urban and Regional Planning at the University of Illinois at Urbana-Champaign seeks an **ASSISTANT PROFESSOR/ASSOCIATE PROFESSOR** possible, (tenure track) beginning August 1991. Education and experience appropriate to the following areas are required; salary negotiable. Joint appointments with related departments possible. Ecological systems pertinent to human settlements; aquatic ecology, hydrology, ground water, or water quality preferable; research and teaching interests must develop environmental science findings to planning; prefer Ph.D. in environmental science, or related field.

For full consideration send by 7 January 1991 your curriculum vitae, two examples of your work (papers, course syllabi, design projects), and names, addresses, and telephone numbers of three references to: Search Committee, Department of Urban and Regional Planning, University of Illinois at Urbana-Champaign, 907½ West Nevada, Urbana, IL 61801. Telephone: 217-244-5397.

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

**BIOLOGIST.** Ph.D. with teaching experience and primary expertise in cell and molecular biology; to teach 12- to 15-hour load, at least half in introductory courses for majors and nonmajors. Send letter of interest, curriculum vitae, and three letters of recommendation to: Dr. T. O. Flickema, VPAA, Northern State University, Aberdeen, SD 57401.

### FACULTY POSITION IN COMPUTATIONAL CHEMISTRY

The Medicinal Chemistry Department invites applications for a tenure-track **ASSISTANT PROFESSOR** position. The working environment represents a unique opportunity to develop a research program encompassing the application of molecular modeling to medicinal chemical research and provides an excellent opportunity for interaction with the Biomedical Engineering Center, the Supercomputer Institute, and with other faculty at the university. Candidates will possess a doctoral degree and at least 1 year of postdoctoral experience in a chemically oriented discipline and have a strong background in semi-empirical quantum mechanics and molecular mechanics as applied to molecules of biological relevance. Experience in 3-D molecular modeling of small molecules and ligand-macromolecular recognition is essential. The successful candidate will be expected to initiate an active research program and teach at the undergraduate and graduate levels. Send application letter, résumé, proposed research program, and the addresses and telephone numbers of three references by 15 February 1991 to: Professor Philip S. Portoghesi, Department of Medicinal Chemistry, University of Minnesota, 308 Harvard Street S.E., Minneapolis, MN 55455. *The University of Minnesota is an Equal Opportunity Educator and Employer, and specifically invites and encourages applications from women and minorities.*

**BIOLOGY DEPARTMENT** at Hartwick College seeks an **ECOLOGIST** for a full-time, tenure-track position beginning September 1991. Commitment to undergraduate teaching and Ph.D. is required. Responsibilities include teaching ecology (upper-level course for majors), evolution, animal behavior, forest ecology, and a course in area of expertise, and to direct undergraduate research in ecology. A strong statistical background is preferred. Send letter of application, résumé, and three letters of reference by 4 January 1991 to: Dr. Robert R. Smith, Chair, Department of Biology, Hartwick College, Oneonta, NY 13820. *An Equal Opportunity Employer.*

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### Senior/Principal Scientists (#DS-90-17/18)

Responsibilities will include supervising a small staff of scientific personnel. To qualify, the Senior Scientist must have 0-3 years' post-doctoral experience and the Principal Scientist must have 5 years' post-doctoral experience in Biochemistry, Chemistry (Organic, Analytical, Medicinal), Pharmacy or related disciplines. A strong background in research areas such as biopharmaceutics, analytical methods development, instrumentation, *in-vivo* and *in-vitro* drug metabolism techniques, including metabolite isolation and identification, and the ability to apply this expertise to independent projects are essential. Excellent oral and written communication skills required.

### Assistant Scientist (#DS-90-14)

To qualify, you must have either a BS or MS in Chemical/Biological Sciences and 0-4 years' relevant experience. A strong background in modern analytical techniques including GLC, HPLC, TLC is required.

We offer an excellent salary and benefits package. For immediate consideration, please send your resume to: Mr. G. Czuba, Schering-Plough Research, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

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## RESEARCH OPPORTUNITIES IN MOLECULAR AND CELLULAR BIOLOGY

**Amgen**, a recognized and innovative leader in the discovery and development of human therapeutic products through applied biotechnology, is actively seeking scientists at BS, MS and Ph.D. levels to conduct research within our Colon Biology program. The objectives of this program will be defining, isolating, cloning and characterizing protein factors involved in the growth and differentiation of the colonic epithelium.

### RESEARCH SCIENTISTS Dept. #549

Candidates for Research Scientist positions must have a Ph.D. in molecular or cellular biology and 2 to 5 years' relevant postdoctoral experience. Candidates must have a strong publication record reflective of their achievements.

Applicants for Molecular Biology positions should have a strong foundation in molecular biology and related techniques including the construction and screening of cDNA libraries. Experience in expression cloning is particularly valuable.

Candidates for Cellular Biology positions must have experience in bioassay development and protein purification. This investigator will be responsible for establishing appropriate bioassays for growth and/or differentiation factors and participating in their isolation and characterization. Experience in intestinal epithelium is particularly desirable.

### POSTDOCTORAL SCIENTIST Dept. #550

Candidates for postdoctoral positions must have a Ph.D. in molecular biology or a related discipline and be familiar with routinely used methodologies in cDNA cloning.

### RESEARCH ASSOCIATES Dept. #551

Minimum qualifications for these positions include a BS in an appropriate field with two years' research experience in molecular and cellular biology. Experience in basic recombinant DNA methodologies and cell culture techniques is highly desirable.

**Amgen** offers a stimulating and challenging research environment on the leading edge of biotechnology. Our need for these positions reflects an ever increasing commitment to the development of significant products for human health care through excellence in research.

If you have the necessary skills and would like to be a part of an organization that places a high priority on its human resources, please send a complete CV, in confidence, to:

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## Faculty Positions In

### MOLECULAR NEUROBIOLOGY

Applications are invited for tenure track faculty positions at the Assistant Professor level. Successful candidates will occupy new laboratories on the neurobiology floor of the Ohio State Biotechnology Center and hold an academic appointment in the College of Biological Sciences, Medicine or Pharmacy. Applicants should demonstrate exceptional potential to develop strong research programs that apply recombinant DNA methodology to address significant problems in neurobiology. The Ohio State University has made a major commitment to establish an outstanding interdisciplinary program in molecular neurobiology that is reflected by the quality research facilities and highly competitive start-up funds and salary that accompany these faculty positions. The Ohio State University is the flagship institution of the State higher education system. It is located in Columbus, the state capital, a growing, yet highly affordable metropolitan area of about 1.3 million people that was recently named by Newsweek magazine as one of the country's top 10 cities.

Applicants should submit a curriculum vitae, statement of research plan and names, addresses, and telephone numbers of three references by January 15, 1991 to: **Dr.**

**THE  
OHIO  
STATE  
UNIVERSITY**

**Anthony Young, Chairperson,  
Molecular Neurobiology  
Search Committee, Ohio State  
Biotechnology Center, 207  
Rightmire Hall, 1060 Carmack  
Rd., Columbus, OH 43210.** The  
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## POSTDOCTORAL SCIENTIST

Wyeth-Ayerst is a recognized world leader in the production of a wide range of highly advanced pharmaceuticals. We currently have an opportunity for a Postdoctoral Scientist to join our Microbiology and Biotechnology Division in Radnor, PA, an ideal location just outside of Philadelphia.

Become an integral member of our research team involved in vaccine and/or CNS research. We want to talk with you if you have a Ph.D. in immunology, biochemistry, or a related field with experience in immunologic techniques, protein purification and tissue culture.

Wyeth-Ayerst offers an attractive salary and benefits which are immediately available for a one year appointment, and can be renewed for another year. Qualified candidates are invited to submit curriculum vitae to:

**Recruitment Manager, Wyeth-Ayerst, Research  
Personnel, P.O. Box 8299, Philadelphia, PA 19101.**

Equal Opportunity Employer, M/F/H/V, responses encouraged. Principals Only.

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# Project Leaders Science and Technology

The New York Blood Center has excellent positions available immediately in the following areas:

## Project Leader/Hematology and Cell Biology

Ph.D. in Cell Biology, Pathology or related areas with a minimum 2 years of post-doctoral experience. Tissue culture experience necessary. Publications.

## Project Leader/Virology and Molecular Biology

Ph.D. in Molecular Biology or Virology with a minimum 2 years of post-doctoral experience. Publications.

This laboratory is dedicated to Research and Development of technologies applied to Transfusion Medicine. The positions entail project management, laboratory administration, experimental work, publications.

There is extensive opportunity for interaction with the Research Staff and Operations Staff of the New York Blood Center.

In addition to working within a stimulating environment, we offer the right individuals 5 weeks vacation, 100% tuition reimbursement, medical/dental coverage and excellent pension plans. Qualified applicants are invited to submit CV and references to: **The New York Blood Center, Research/Human Resources, 150 Amsterdam Ave., NY, NY 10023.** Equal opportunity employer M/F.

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# Senior Research Fermentation Biochemist

Merck Sharp & Dohme Research Laboratories is currently offering a Ph.D. position in the Department of Cellular and Molecular Biology at the research facilities in West Point, PA. The successful candidate will be working in the newly renovated fermentation area equipped with a computer-coupled data acquisition system. The position requires innovative design and analysis of fermentation processes with recombinant microorganisms.

You will interact with a variety of scientists ranging from molecular biologist and biochemists to biochemical engineers, with the goal of achieving improved fermentation processes especially in optimizing fed-batch techniques. You are encouraged to publish results and attend scientific meetings.

The position requires a Ph.D. in microbiology, biochemistry, biochemical engineering or equivalent, and appropriate research experience. A background in molecular biology, biochemistry and biochemical engineering is desirable.

Excellent salary and benefit programs accompany this position at our West Point Laboratories located 25 miles northwest of Philadelphia.

Please send curriculum vitae with cover letter to: **Personnel Manager, Ad #B-36, Research Personnel, WP42-2, Merck Sharp & Dohme Research Laboratories, West Point, PA 19486.**

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## DEPARTMENT OF THE ARMY JOB VACANCY

### ELECTRONICS ENGINEER

The U.S. Army Research Office (ARO), located in Research Triangle Park, North Carolina, is seeking a highly qualified Electronics Engineer to serve as Associate Director of the Electronics Division. This is a Civil Service position at the GS-15 grade level with a salary range of \$59,216-\$76,982 per annum.

The incumbent will share with the Director the responsibility for directing a broad program of research in the field of electronics including monitoring progress of Division activities towards program goals, proposing resource distribution, representing the Electronics Division at briefings and seminars to insure the effective interchange of scientific knowledge, participating in studies and committees assessing technical areas of importance to ARO and integrating knowledge into the formulation of program plans and objectives. Incumbent will also act as Program Manager for an external contract research program in one or more electronics subfields: micro-electronics; physical electronics and opto-electronics; circuits and signal processing; and antennas and electromagnetic detection. The incumbent will identify new research opportunities, communicate ARO interests to the scientific community, evaluate and select research proposals for funding, manage available resources, and communicate research results to appropriate Army activities.

In addition to the basic requirement of a bachelor's degree in engineering, applicants must have one year of specialized experience in electronics engineering equivalent to the next lower grade in the Federal Service and a background in fundamental research. Applicants should possess (1) Ability to plan, direct and guide a research program in electronics engineering; (2) Ability to evaluate research proposals for technical merit; (3) Advanced knowledge of one or more subfields of electronics engineering and evidence that technical competence has been maintained; (4) Ability to interact effectively with other scientists, professional groups and management officials; and (5) Ability to review and evaluate program implementation and results.

Applicants should submit a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers and Federal Personnel Offices) and a supplemental statement which addresses each qualification listed above to: U.S. Army Research Office, ATTN: SLCIS-CP-AR, P.O. Box 12211, Research Triangle Park, NC 27709-2211. For further information, call (919) 549-0641, extension 212. Applications must be received by December 31, 1990.

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## Institute for Biomolecular Science University of South Florida

### GRADUATE FELLOWSHIPS (MULTIDEPARTMENTAL)

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- MICROBIOLOGY
- BIOTECHNOLOGY
- BIOCHEMISTRY & MOLECULAR BIOLOGY
- CELL BIOLOGY

The UNIVERSITY OF SOUTH FLORIDA has recently established an INSTITUTE FOR BIOMOLECULAR SCIENCE with emphasis on research in the above areas. Fellowships include \$12,000 stipend PLUS tuition waiver PLUS travel to a national meeting. For further information contact:

Dr. Daniel V. Lim  
Institute for Biomolecular Science  
University of South Florida  
LIF 169  
Tampa, FL 33620-5150



## POSITIONS OPEN

### MATHEMATICAL STATISTICIAN

To develop design of finite element model of human brain and skull, and design algorithms for solving equivalent dipole models and conduct simulation studies. Candidate must have Ph.D. degree in mathematical statistics or related field and working knowledge of UNIX. Experience with electromagnetic theory would be helpful. Please send résumé to: **Box 135, SCIENCE.**

**POSTDOCTORAL POSITIONS.** Available in the areas of molecular, cell, and developmental biology. Applicants should send curriculum vitae, references, and a brief description of research interests to: **The Postdoctoral Program, EC/Department of Molecular Biology, Lewis Thomas Laboratory, Princeton University, Princeton, NJ 08544. Princeton University is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION.** For 2 years in alcohol research available immediately. Studies include the hormonal regulation of expression of genes involved in ethanol metabolism, purification and molecular cloning of factors controlling expression of the same genes. *U.S. citizen or permanent resident.* Send letter of application and curriculum vitae to: **Esteban Mezey, M.D., Professor of Medicine, The Johns Hopkins University, Hunt. 415, 725 North Wolfe Street, Baltimore, MD 21205.**

**POSTDOCTORAL ASSOCIATES.** Two positions are available to study fungal (1-3)  $\beta$ -glucan synthase. Research will involve purification of enzyme activity as well as molecular cloning of the relevant genes. Experience with protein purification or molecular biology is essential. Please submit curriculum vitae with names of references to: **Dr. C. Selitrennikoff, Department of Cellular and Structural Biology, University of Colorado Health Sciences Center (UCHSC), 4200 East 9th Avenue, B-111, Denver, CO 80262. UCHSC is an Affirmative Action/Equal Opportunity Employer.**

### POSTDOCTORAL TRAINEESHIP

Two NIH/NRSA-funded postdoctoral positions are available in the Molecular Medicine Program, Lawrence Berkeley Laboratory, to conduct lipoprotein and atherosclerosis research. Project areas include gene expression in transgenic mice, mechanisms of lipoprotein oxidation, and cell biology of reverse cholesterol transport. Requires a recent Ph.D. in molecular biology or cellular biology as appropriate. *Applicants must be U.S. citizens or permanent residents.* Send curriculum vitae and the names and addresses of three references to: **Dr. Ronald M. Krauss, Program Leader, Molecular Medicine Program, Lawrence Berkeley Laboratory, Donner Laboratory, 1 Cyclotron Road, Berkeley, CA 94720. Affirmative Action/Equal Opportunity Employer.**

**THREE POSTDOCTORAL POSITIONS.** Available immediately on NIH Training Grants to study molecular mechanisms of chemical and viral carcinogenesis and molecular, cellular, and immunological aspects of eukaryotic gene control. The program is situated in the newly constructed Norris Cancer Center which contains state-of-the-art microchemical, microinjection, flow cytometry, pharmacological, cell culture, and computer core facilities. Training faculty are: Dan Broek (Regulation of oncogene function); Robert Dens (Molecular biology of B cell activation); Gunther Dennert (Molecular and cellular immunology); Yuen K. T. Fung (retinoblastoma); Myron Goodman (biochemical mechanisms of fidelity and SOS repair); Peter A. Jones (tumor cell biology; DNA methylation); Joseph R. Landolph (molecular biology of chemical transformation); Amy Lee (molecular biology; control of mammalian gene expression); Rob Maxson (Gene regulation during early development); Minnie McMillan (Role of MHC complex); Mark Moore (Molecular immunology); Chi Nguyen-Huu (Transgenic mice/homeobox); Suraiya Rasheed (retroviruses; AIDS-related lymphomas); Pradip Roy-Burman (retroviruses and oncogene alleles); Peter K. Vogt (Oncogenes). *Candidates must be U.S. citizens or permanent residents. Minority and women candidates are strongly encouraged to apply.* Send curriculum vitae, three letters of recommendation, and preference of faculty preceptors to: **Dr. Joseph R. Landolph, Kenneth Norris Jr. Comprehensive Cancer Center/USC School of Medicine, 1441 Eastlake Avenue, Los Angeles, CA 90033. Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** With research directed at the pathophysiology of uremic growth failure by using cellular and molecular biology techniques. NIH-supported. *Restricted to U.S. citizens and permanent residents.* Candidates should send curriculum vitae and three references to: **James C. M. Chan, M.D., Medical College of Virginia, Station Box 498, Richmond, VA 23298-0498. Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL POSITION

Available immediately to study the role of carcinogen-DNA interactions in carcinogenesis. Experience with animals or cell cultures preferred. Candidates should be highly research motivated. Please send curriculum vitae, summary of research accomplishments, and names of three references to: **Dr. Ramesh Gupta, Preventive Medicine, 308 Funkhouser, University of Kentucky, Lexington, KY 40406.**

**POSTDOCTORAL POSITION.** To study expression and function of unique sulfated oligosaccharides found on pituitary glycoprotein hormones. Projects directed at cloning glycosyltransferases responsible for oligosaccharide synthesis and defining their functional significance for sorting to storage granules and hormone bioactivity. Experience in molecular biology and/or biochemistry is essential. Send curriculum vitae and references to: **Dr. Jacques U. Baenziger, Washington University Medical School, Department of Pathology, 660 South Euclid Avenue, St. Louis, MO 63110. FAX: 314-362-8888.**

**POSTDOCTORAL POSITION.** Available for investigating the molecular/genetic basis of DNA strand break repair in mammalian cells using various repair deficient mutants. One year of recent experience in molecular biology and/or biochemistry preferred. We offer a competitive salary and benefits package. Send statement of research interest, curriculum vitae, and three references to: **Dr. Thomas D. Stamato, The Lankenau Medical Research Center, Lancaster Avenue west of City Line, Philadelphia, PA 19151-0598, or call: 215-645-8400. Equal Opportunity Employer. A member of the Main Line Health family of hospitals.**

**POSTDOCTORAL POSITION.** Available immediately, for up to 4 years, to study stress-induced alterations in rat brain serotonergic function, to define neurotransmitter and steroid mediators and the molecular basis for the stress-induced biochemical changes within serotonergic neurons. Project uses neurochemical, pharmacological, and stereotaxic approaches. Send curriculum vitae and names of three references to: **Dr. M. C. Biber, Department of Physiology, Medical College of Virginia, Virginia Commonwealth University, Richmond, VA 23298-0551. Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL POSITION HOST DEFENSE/NEUTROPHIL BIOLOGY

Position is available to study mechanisms underlying the synergistic action of IgM antibodies and the alternative complement pathway in promoting bacterial phagocytosis and killing by neutrophils (*J. Exp. Med.* 164, 777; *Rev. Infect. Dis.* 12, S161). There is opportunity for promotion to junior faculty status. Training in phagocyte biology is desirable. Send curriculum vitae and names of three references to: **Dr. Ann Bjornson, Director, Division of Immunology, James N. Gamble Institute of Medical Research, 2141 Auburn Avenue, Cincinnati, OH 45219. An Equal Opportunity Employer.**

The Basic Science Departments (Cell Biology and Neuroanatomy, Biochemistry, Microbiology, Pathology, Pharmacology, Physiology), Medical School, University of Minnesota, periodically have openings for **POSTDOCTORAL TRAINING.**

For information about possible openings in these programs, write, specifying department of interest, to:

**University of Minnesota Medical School  
Box 293 UMHC  
420 Delaware Street, S.E.  
Minneapolis, MN 55455  
Attention: James C. Nelson**

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

## POSITIONS OPEN

### BEATRICE WATSON PARRENT POSTDOCTORAL RESEARCH FELLOWSHIP

The Institute for Astronomy, University of Hawaii, solicits applications for the 1991 award of the Beatrice Watson Parrent Fellowship in Astronomy, which is supported by endowed funds. The successful applicant will be based in Honolulu, and will be free to pursue the research area of her/his choice without functional duties or other obligations. Observational facilities include the UH 2.2-m and 0.6-m telescopes, the 3.6-m Canada-France-Hawaii Telescope, the 3.8-m United Kingdom Infrared Telescope, the 3-m NASA-IRFT, the 15-m James Clerk Maxwell Telescope, the 10-m Caltech Submillimeter Telescope, the Mees Solar Observatory, and the LURE lunar and satellite ranging observatory. Computing facilities at the Institute for Astronomy include a network of Sun-4 and Sun-3 class machines, plus access to the San Diego Supercomputer Center.

Applications are sought from recent or imminent Ph.D. recipients of high standing in any field of astronomy or astrophysics. Appointment will be initially for a 2-year period, beginning September 1991, with the possibility of renewal for a third year. Annual stipend will be approximately \$33,500, with possibility of increase subject to authorization. A research budget will be available to the appointee. Additional information may be obtained from: **Dr. David Jewitt, telephone: 808-956-6664.** To apply, send a letter describing research achievements and scientific goals, curriculum vitae, and a bibliography to: **Dr. Donald Hall, Director, Institute for Astronomy, 2680 Woodlawn Drive, Honolulu, HI 96822.** Three letters of recommendation should be sent directly to the director. All applications must be received, complete, at the Institute for Astronomy by 31 December 1990. *Equal Opportunity/Affirmative Action Employer.*

### WILLS EYE HOSPITAL THE P. ROBB McDONALD, M.D. AND DAVID MEYER, M.D. POSTDOCTORAL RESEARCH FELLOWSHIPS

Available immediately for studies in ocular inflammation and tumors. Research experience in molecular biology necessary. Send curriculum vitae and names of two references to: **Joyce D. Fuhrman, Wills Eye Hospital, Research, 9th and Walnut Streets, Philadelphia, PA 19107.**

### POSTDOCTORAL FELLOWSHIPS CALIFORNIA PARKINSON'S FOUNDATION

The California Parkinson's Foundation invites applicants for postdoctoral fellowships for 1991. Research projects are aimed at elucidating the molecular basis of neurodegenerative processes. Biochemical and toxicological studies applied in the field of neuroscience will involve analysis of the effects of drugs and potential environmental toxicants in different model systems using techniques such as tissue cultures, GC/MS, HPLC, and PCR. Applicants with training in pharmacology, toxicology, or biochemistry are invited to send their curriculum vitae and names of three references to: **Dr. J. William Langston, California Parkinson's Foundation, 2444 Moorpark Avenue, Suite 316, San Jose, CA 95128.**

The Day Neuromuscular Research Center at the Massachusetts General Hospital (MGH) (Harvard Medical School) in Boston, Massachusetts, has an immediate opening for a **POSTDOCTORAL FELLOW** and technician in investigations of defective human genes underlying familial forms of amyotrophic lateral sclerosis. The project entails a wide range of methodologies including linkage analysis using anonymous DNA markers, preparation and mapping of cosmids and new probes from selected chromosomal regions, and PCR analysis of highly polymorphic regions of DNA in ALS pedigrees. The studies will encompass both conventional linkage data analysis and novel linkage strategies such as homozygosity mapping. The project is directed collaboratively by Drs. R. Brown (Day Neuromuscular Research Laboratory, MGH), J. Gusella (Neurogenetics Unit, MGH), and R. Horvitz (Biology, Massachusetts Institute of Technology). The laboratory is located in a new facility in the Neuroscience Center in Charlestown. Excellent technical back-up is available. *The Massachusetts General Hospital is an Equal Opportunity Employer.* Please contact: **Dr. Bob Brown; telephone: 617-726-5750.**



## National Institutes of Health

### Research Scientist and Postdoctoral Fellows

## TASTE AND SMELL

Research Scientist (D.M.D., M.D., Ph.D., D.D.S.) sought to head a new research project on Taste and Smell. Areas of investigation will include the nature of the cell surface receptors, mechanisms of signal transduction and membrane channels. Training in molecular biology, protein chemistry and cell biology is desirable. Positions for post-doctoral fellows also are available. Salary is commensurate with experience. Send Curriculum Vitae and names of references to:

**Dr. Lois Salzman, Deputy Director  
Intramural Research Program  
National Institute of Dental Research  
National Institutes of Health  
9000 Rockville Pike  
Building 30, Room 121  
Bethesda, MD 20892**



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**Elizabethtown  
COLLEGE**

## Environmental Microbiologist

Applications are invited for a tenure-track position at the Assistant Professor level in the Department of Biology beginning fall 1991. The Department is seeking a person to develop an Environmental Studies Program and related courses such as aquatic biology and toxicology and teach an introductory microbiology course. The candidate should have a Ph.D. in Microbial Ecology/Environmental Microbiology or environmentally related area, have a strong commitment to undergraduate teaching, and have a desire to develop a research program with undergraduates. Grant writing experience is desirable but not necessary. Minorities and women are encouraged to apply.

To apply, submit letter of application, curriculum vitae, description of research interests, transcripts, and three current letters of reference by January 15, to Martha A. Farver-Apgar, Director of Personnel, Elizabethtown College, One Alpha Drive, Elizabethtown, PA 17022.

AA/EO



## UNIVERSITY OF VIRGINIA

**The Markey Center  
for Research on Cellular Signaling Processes**

### Faculty Positions in:

- Structure of Cell Membranes and Receptors
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- Signal-initiated Regulation of Gene Expression
- Pertinent Macromolecular Structures

Research in these areas is supported by university-wide, multidisciplinary programs of the Molecular Biology Institute, the Biodynamics Institute, and the university's newly-organized and funded Markey Center. Several new positions will be filled in each of the coming three years. Emphasis is upon assistant Professorships, but senior appointments are also planned.

Applications and nominations from qualified scientists are cordially invited. Applicants should provide a full academic and research résumé and the names and addresses of three referees. Please write to:

Markey Center Search Committees  
Center for Advanced Studies  
University of Virginia  
Charlottesville, VA 22903-3196

*The University of Virginia is an Affirmative Action,  
Equal Opportunity Employer*

## BIOLOGY

The Department of Biology at the University of Southwestern Louisiana (enrollment, 16,000) invites applications for three tenure-track positions in support of the doctoral program in Environmental and Evolutionary Biology. Faculty are expected to develop an active research program, participate in undergraduate and graduate education, and direct graduate research. The biology professorial faculty currently numbers 27 with research interests ranging from molecular to ecosystem studies. USL has an exceptionally well-equipped Electron Microscopy Center and a Center for Advanced Computer Studies. Other resources include the Primate Research Center, the Center for Crustacean Research, the Louisiana Universities Marine Consortium (LUMCON) marine laboratory and research vessels, and affiliation with the U.S. Fish and Wildlife Service's National Wetlands Research Center. The department has recently been awarded top ratings by an outside panel of nationally prominent reviewers.

We are seeking qualified individuals in the following areas:

**CELLULAR or NEUROBIOLOGY** – research interests primarily non-medical; ability to teach undergraduate immunobiology.

**ENVIRONMENTAL and RESOURCES BIOLOGY** – research interests may include, but are not limited to, remote sensing, landscape modelling and restoration, wildlife population dynamics and nutrition, and biodiversity, especially in coastal wetlands.

**TOXICOLOGY** – research interests in toxicology of freshwater or marine systems.

Send curriculum vitae, selected reprints, a concise statement of research goals, and names, addresses and telephone numbers of three referees. Review of applications will begin 15 January 1991 and continue until positions are filled. Direct application to: Faculty Development Search Committee, Department of Biology, University of Southwestern Louisiana, Lafayette, LA 70504-2451. AA/EOE.

## RESEARCH SCIENTIST

Berwick Corporation, a rapidly growing biotechnology Company has an excellent opportunity available for a research scientist at its Warminster, PA facility in suburban Philadelphia.

You will be involved in product development and technical marketing support for the nucleic acid purification product line of the company's Life Science Division. You will have a strong background in biochemistry, molecular biology or genetics and experience in HPLC, gel electrophoresis, and recombinant DNA techniques.

The successful candidate will have a Ph.D in a life science, excellent verbal, written and interpersonal communication skills. We offer a competitive salary and comprehensive benefit program. For consideration, please forward your resume, with salary requirements to: Berwick Corporation, Box 2548, Warminster, PA 18974.

**berwick**



## POSITIONS OPEN

### SMITHSONIAN POSTDOCTORAL FELLOWSHIPS IN MOLECULAR EVOLUTION AND PLANT PHYSIOLOGY

Postdoctoral fellowships in molecular evolution and plant physiology are available for research to be conducted at one or more of the following Smithsonian Institution bureaus: National Museum of Natural History (Washington, D.C.); National Zoological Park (Washington, D.C.); Smithsonian Tropical Research Institute (Panama). In addition, a portion of the research may be conducted at the Smithsonian Environmental Research Center (Maryland). Stipends are \$24,000 annually, including travel. Tenures are from 12 to 24 months. Deadline: 15 February 1990. For information and applications, write: **Office of Fellowships and Grants, Desk MS, Smithsonian Institution, Washington, DC 20560.**

**POSTDOCTORAL RESEARCH TRAINING FELLOWSHIPS** in endocrinology, metabolism, diabetes for M.D. or Ph.D. graduates are available at Emory University School of Medicine utilizing eleven training faculty in six basic and clinical departments. *Must be U.S. national or permanent resident.* M.D. applicants must have U.S. residency experience. Send curriculum vitae, statement of research and career objectives, and two letters of reference to: **Lawrence S. Phillips, M.D., Program Director, Emory University School of Medicine, 69 Butler Street, S.E., Atlanta, GA 30303.** *An Equal Opportunity Employer.*

### RESEARCH FELLOWSHIPS

Positions available in basic research (cell biology, molecular biology, biochemistry, physiology). M.D.'s, M.D.-Ph.D.'s, and Ph.D.'s eligible. *Must be U.S. citizen or permanent resident.* Contact: **William R. Brown, M.D., Gastroenterology Division, B-158, University of Colorado School of Medicine, 4200 East Ninth Avenue, Denver, CO 80262; telephone: 303-399-8020, ext. 3130; FAX: 303-320-0608.** *The University of Colorado is an Equal Opportunity/Affirmative Action Employer.*

### MOLECULAR TUMOR BIOLOGY

**POSTDOCTORAL/RESEARCH ASSOCIATE POSITION.** Available immediately for candidate with background in one or more of the following areas: molecular biology, genetic engineering, virology, immunology, biochemistry, or radiation biology. Candidate will participate in research on the oncogenic mechanisms and growth control of radiation-resistant human cancers. Ongoing projects involve antisense-directed gene inhibition strategy, signal transduction, and PCR-based evaluation of the oncogene function in normal versus tumor cells. Please send curriculum vitae to: **Dr. U. Kasid, Associate Professor, Department of Radiation Medicine, The Vincent T. Lombardi Cancer Research Center, Georgetown University Medical Center, 3800 Reservoir Road, N.W., Washington, DC 20007.** *Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSOCIATE.** For university in north-eastern Ohio. To conduct advanced research on liquid crystals using deuterium NMR spectroscopy. The research encompasses the following three projects: to study the effects of confinement (cylindrical and spherical cavities) on liquid crystal, surface-induced orientational order, and phase transition and self-diffusion of liquid crystal; to study the electro-optical properties of polymer-dispersed liquid crystal, using laser light scattering technique; and to do computer simulation of textures of polymer-dispersed liquid crystal droplets and NMR spectrum of liquid crystal. Must have Ph.D. in physics and academic program must have included one course each in quantum mechanics, statistical physics, advanced theoretical physics, solid-state theory, advanced optics, and condensed matter physics. Must have ability as evidenced by academic course work and/or publications and/or employer testimonials to conduct research using deuterium NMR spectroscopy and to do computer simulations of the behavior of polymer-dispersed liquid crystal. Forty hours per week, 8:30 a.m. to 5:30 p.m.; \$22,500 per year. No experience required. *Must have proof of legal authority to work permanently in the United States.* Send résumé and course transcript in duplicate (no calls) to: **J. Davies, JO# 1242008, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH ASSOCIATE IN AQUATIC BIOLOGY.** Available immediately to study toxic substances and microbial, fisheries, or zooplankton ecology. Experience in the flux of toxic substances is particularly desirable. The successful applicant will participate in funded Great Lakes and watershed programs and have the opportunity to develop independent research allied to these projects. Salary: \$25,000. To apply, please send résumé, summary of research experience, publications, and names of three references to: **Dr. Ronald Ward, Water Resources Institute, Grand Valley State University, Allendale, MI 49401.** *Equal Opportunity/Affirmative Action Employer.*

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Food and Feed Safety Research Unit, Southern Regional Research Center (SRRC), is seeking a **POSTDOCTORAL RESEARCH ASSOCIATE** to work for 2 years with a team developing techniques to alter populations of *Aspergillus flavus* in agricultural fields. The work may include fundamental and applied aspects of the project. Some knowledge of serology and/or molecular biology would be useful. Scale: GS-11 (\$29,891). For information on the research program, contact: **Dr. Peter J. Cotty, USDA-ARS, SRRC, P.O. 19687, New Orleans, LA 70179. Telephone: 504-286-4391.** For procedures/forms, contact: **Judy Harrington, 301-344-1506.** Mark responses S-0-010. *USDA is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL RESEARCH ASSOCIATE

A postdoctoral position is available 1 January 1991 to study microtubule assembly dynamics in the vertebrate brain (at the University of Kansas) and the squid giant axon (at the Marine Biological Laboratory, Woods Hole, Massachusetts). Projects involve biochemical, cellular, and video-enhanced optical approaches to identify and characterize endogenous inhibitors of microtubule assembly and/or regulators of dynamic instability. Candidates should have a Ph.D. and experience in relevant technologies. The salary range for this position is \$22,000 to \$26,000 depending upon experience. Please send curriculum vitae, brief statement of research experience and interests, and three letters of reference to: **Dr. Kathy A. Suprenant, Department of Physiology and Cell Biology, 4010 Haworth Hall, University of Kansas, Lawrence, KS 66045.** *Equal Opportunity Employer.*

### POSTDOCTORAL RESEARCH POSITIONS.

Available to study the toxic effects of ethanol on biological systems. The focus is on molecular and biochemical mechanisms of cellular toxicity using tissue culture cells as a model. The well-funded, productive laboratory is part of a diverse interdisciplinary group including NIH-funded liver and alcohol centers investigating basic mechanisms of cellular injury. Strong background in cellular physiology and practical experience in tissue culture is required. This is an excellent opportunity for diverse collaborations and to develop expertise in molecular biology techniques. Competitive salary. Send curriculum vitae and names of three references to: **Sharon Taylor, University of Colorado Health Sciences Center, Hepatobiliary Center, Box B158, 4200 East 9th Avenue, Denver, CO 80262.** *Equal Opportunity/Affirmative Action Employer.*

### ASSOCIATE RESEARCH SCIENTIST

Nontenure-track research positions available in the Department of Physiology and Cellular Biophysics. Candidates must possess M.D. or Ph.D. degree and at least 3 years of postdoctoral experience. Areas of interest are (i) biochemical studies of endothelial biology, requiring experience in hybridoma antibody production, protein chemistry, and cell culture; (ii) studies of the early embryological development of the mammalian central nervous system, requiring experience in embryological techniques, molecular biology, immunohistochemistry, and protein biochemistry; and (iii) studies of molecular mechanisms of inflammation involving membrane biochemistry, cell, and molecular biology, requiring experience in membrane biochemistry, cell, and molecular biology. Send application with full curriculum vitae to: **Dr. Samuel C. Silverstein, Chairman, 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.*

## Senior Staff Fellowship

Senior Staff Fellowship in clinical psychiatry and molecular genetics, Clinical Neurogenetics Branch, NIMH Intramural Program. Opening for a psychiatrist or other behavioral scientist with experience in molecular scanning methods, particularly denaturing gradient gel electrophoresis, and clinical psychiatric genetics, including linkage studies, to pursue investigations on disease mutations and linkage in medical disorders, including psychiatric disorders such as schizophrenia, manic-depressive illness, Alzheimer's disease.

**Requirements:** M.D. and at least three years of psychiatric residency, and at least one research fellowship experience related to this position, or equivalent doctoral training, clinical, and research experience in another related discipline. U.S. citizenship or permanent residency.

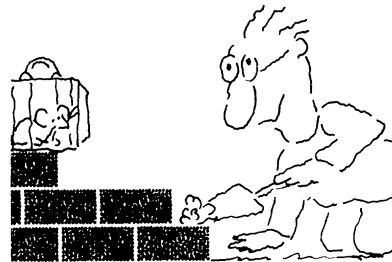
**Salary:** depends on education and experience. Federal salary range for Senior Staff Fellowships is \$32,000 to \$54,727.

**Contact:** Elliot S. Gershon, M.D., Chief, Clinical Neurogenetics Branch, National Institute of Mental Health, National Institutes of Health, Building 10-3N218, 9000 Rockville Pike, Bethesda, Maryland 20892; Phone: (301) 496-3465

Position can begin July, 1991

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# Manager, Infectious Diseases Research

Pfizer Inc is an international leader in the research and development of health care products. The Department of Immunology and Infectious Diseases of the Central Research Division is committed to innovative research to discover novel agents with contemporary mechanisms of action for the treatment of infectious diseases. Our approach to drug discovery encourages individual creativity as an important element in guiding a team effort toward a therapeutic target. This philosophy results in an environment that is challenging to the individual while enhancing group productivity. Scientific growth and development are stimulated by frequent interactions with prominent scientists in academia and medicine as well as with members of the research community within Pfizer.

You are particularly encouraged to apply if you have established an independent research group or have

project coordination or industrial management experience. You must have a minimum of 8 years experience beyond the PhD or MD degree and desire to coordinate a dynamic project team's interactions with other discovery teams. You will also be expected to establish your own laboratory and participate in planning research programs and advancing product candidates.

In addition to a stimulating research environment and an excellent opportunity for professional recognition and advancement, we offer a competitive salary/benefits package and the opportunity to live in an attractive Connecticut shore community. Qualified applicants should submit their resume and references in confidence to: **Dr. Jerry K. Larson, Assistant Director, Employee Resources, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, CT 06340.** An equal opportunity employer.



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## THE ROYAL SOCIETY ROYAL SOCIETY UNIVERSITY RESEARCH FELLOWSHIPS

Applications are invited for about 30 Royal Society University Research Fellowships tenable in the first instance for five years from 1 October 1991 (or slightly later in the academic year 1991-92), with two possible further renewals for three and then two years. The Fellowships are available in any branch of science, including agriculture, medicine, mathematics, engineering and technology. The primary criterion for selection will be scientific merit based on record so far and on future potential. Some account will also be taken of the facilities and intellectual environment being offered by the prospective host department. Salaries will be on the nonclinical university scale, with London Allowance where appropriate. Annual research expenses (a sum of up to £10000 may be sought in 1991-92) will be available, together with return travel and a contribution to baggage costs for successful applicants from overseas and their families.

Applicants should be Scientists normally with between 3 and 10 years of post doctoral research experience. They must be British Citizens and propose to hold the fellowships in universities or polytechnics in the United Kingdom. Those who already have substantive posts in these places will not normally be considered. Previously unsuccessful applicants are welcome to apply again if still eligible, but should make fresh applications and arrange for updated referee's statements.

Application details are available (on written request only) from Mrs. U. M. A. Tokle, The Royal Society, 6 Carlton House Terrace, London, SW1Y 5AG (FAX: 071-930 2170). Closing date 15 February 1991. Application forms will not be available after 1 February and no application arriving after 4 p.m. on 15 February will be considered.

U.S. DEPARTMENT OF ENERGY

## **P**OSTGRADUATE RESEARCH PROGRAMS

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- Recent graduate degree
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Information and applications:



**Postgraduate Research Programs**  
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Oak Ridge Associated Universities  
P.O. Box 117  
Oak Ridge, TN 37831-0117  
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## POSITIONS OPEN

**RESEARCH ASSOCIATE.** For university in western Oregon to conduct research: chemical synthesis and characterization of organic molecules as probes and reagents for biological and medical studies, synthesis and modification of conducting polymers, development of processes for chemical construction and fabrication of microscale conducting wires from novel monomers and conducting polymers, and generation of submicron circuits using electron beam lithography. Job requires a Ph.D. in chemistry and familiarity with organic synthesis techniques, HPLC, high field FT-NMR, FT-IR, UV, and MS techniques for characterization of new compounds, polymer synthesis and microphotographic techniques, and ChemDraw and Microsoft Word computer programs. Forty hours per week, \$18,492 per year. *Must have proof of legal authority to work in the United States.* Send résumé in duplicate to: **Employment Division, JO# 5550055, 875 Union Street, N.E., Room 201, Salem, OR 97311.**

**RESEARCH ASSOCIATE.** To conduct research on reversible immortalization of neural and muscle cells, developing new approaches to the treatment of muscular dystrophy and other degenerative diseases. Candidates must have a B.S. in biochemistry with 3 years of research experience or M.S. The successful candidate must have research experience in: (i) primary muscle cell culture and neural cell culture; immortalization of neural and muscle cells; (ii) antisense oligodeoxynucleotide construction and manipulation; expression vector construction for immortalization; (iii) tumor suppressor gene expression and regulation in neural and muscle cells; and (iv) cell analysis by flow cytometry and the MTT method. Forty hours per week; \$27,000 per year. Send this ad and your résumé in duplicate to: **C. Wester, UCLA/Reed Neurology, 710 Westwood Plaza, Los Angeles, CA 90024-1769.** *An Equal Opportunity Employer.*

**RESEARCH ASSOCIATE POSITION.** Available to study (i) signal transduction mechanisms involved in the cardiac actions of EGF, (ii) transcriptional/translational regulation of the ANF receptor/guanylate cyclase in regenerating livers, and (iii) metabolic and growth modulating actions of atrial natriuretic factor. Applicants must possess an M.D. and/or Ph.D. degree in one of the biomedical sciences with at least 2 years of training in the area of biochemical pharmacology. The individual is expected to analyze data, write manuscripts, compete for extramural grant support, and present seminars and journal clubs related to his/her work. Annual salary: \$23,004. Forward curriculum vitae and arrange for three letters of recommendation (by 31 December 1990) to be sent to: **Mrs. Edna Flynn, Tennessee Job Service, 1295 Poplar Avenue, Memphis, TN 38104.** *Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer. Minority candidates and women are especially encouraged to apply.*

### RESEARCH ASSOCIATE

Applications are invited for a non tenure-track faculty position to study factors affecting proteolysis in bacteria. Specific points of interest include stabilization of eukaryotic proteins synthesized in bacteria, enzymes responsible for protein breakdown, mutations that alter protein breakdown, and changes in protein breakdown related to growth conditions. Requires Ph.D. plus laboratory experience in molecular biology and molecular cloning. Annual starting salary: \$27,804 plus full benefit package.

Interested candidates please forward your curriculum vitae and the names of three references to: **Dr. Lee Simon, Waksman Institute, Rutgers, The State University of New Jersey, P.O. Box 759, Piscataway, NJ 08855-0759.** *Successful candidate to provide employment eligibility verification.*

*Affirmative Action/Equal Opportunity Employer.*

The Philadelphia Biomedical Research Institute offers positions for **SENIOR RESEARCH SCIENTISTS** who want to establish their own research laboratory to study cancer or AIDS. The institute does not have initial salary, but will offer laboratory facilities and administrative assistance. The applicants should have their own on-going grants, or be ready to submit research grants from our institute. Collaboration with research groups in University of Pennsylvania, Temple University, and other schools in Philadelphia area is possible. Contact: **Dr. S. T. Ohnishi, Ph.D., Director, 502 King of Prussia Road, Radnor, PA 19087.** *The Philadelphia Biomedical Research Institute is a nonprofit institute and is an Equal Opportunity Employer.*

## POSITIONS OPEN

### INSTITUTE OF ECOSYSTEM STUDIES SOIL MICROBIAL ECOLOGIST

**ASSISTANT OR ASSOCIATE SCIENTIST** position available for ecologist with research interests in soil microbial ecology. Successful applicant will interact with a diverse group of terrestrial and aquatic ecologists with an ecosystem focus. Foundation grant available to support a strong research program in soil microbial ecology. Ph.D. required; postdoctoral experience desirable.

A letter of application, curriculum vitae, and names of three references should be sent by 15 January 1991 to:

**Dr. Gene E. Likens**  
Search Committee  
Institute of Ecosystem Studies  
The New York Botanical Garden  
Box AB  
Millbrook, NY 12545  
*Equal Employment Opportunity.*

Unique opportunity to participate in the expansion of McLaughlin Research Institute, a small mammalian genetics center in Great Falls, Montana. Immediate openings for **ESTABLISHED INVESTIGATORS** to work in a nonbureaucratic, interactive research environment and to participate in the design of the new facility and in recruitment and selection of additional scientists. Current research programs are on the genetics of susceptibility to cancer and neurodegenerative diseases, but recruits will play a major role in determining future research directions. For more information, contact: **George A. Carlson, Scientific Director, McLaughlin Research Institute, 1625 3rd Avenue North, Great Falls, MT 59401** or any of the following members of our Scientific Advisory Committee: Jeff Frelinger, Norm Reed, Lee Hood, Neal Copeland, or Irv Weissman.

*An Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT SCIENTIST.** Position in the Surgical Metabolism and Nutrition Laboratories at the University of Florida. Ph.D. degree required with strong research interest in molecular biology. Application deadline: 15 December 1990. Starting date: 1 January 1991. Salary: negotiable. Contact: **Wiley W. Souba, M.D., Box J-286, JHMHC, University of Florida, Gainesville, FL 32610.** *Equal Opportunity/Affirmative Action Employer.*

**BIOLOGIST.** We currently have a position available for an experienced molecular biologist in our Basic Research Division. You will conduct experiments involving cloning, sequencing, PCR, gene expression, and regulation. Experience in mammalian cell culture is preferred; 2 to 5 years of experience as a molecular biologist is required.

Syntex offers outstanding research facilities in a beautiful campus-like setting. Our comprehensive benefits package includes an annual Bay Area cash bonus program, a day care facility, and an on-site health club. For immediate consideration, please send your résumé to: **Syntex, Professional Staffing Department SH, 3401 Hillview Avenue, P.O. Box 10850, Palo Alto, CA 94303.** *We are an Equal Opportunity Employer.*

**ASSISTANT STAFF SCIENTIST.** Responsible for independent research in purification and recovery of recombinant proteins expressed in microbial and mammalian cell hosts and design of separation processes for the pilot manufacturing plant. Research techniques utilized include laser light scattering and chromatographic separation techniques, such as ion exchange, affinity, metal cleating chromatography, size exclusion chromatography, and gel electrophoresis. Design responsibilities include design of laser light scattering apparatus and of separation processes for pilot plant. Requirements: Ph.D. in chemical engineering and 1 year of work experience in scientific research. Experience must include (i) design and use of laser light scattering apparatus to study proteins, including computer analysis of data, and (ii) performance of research in protein measurement technology including chromatographic separation techniques. Must have published at least three articles on related topics in refereed scientific journals. Position located in Seattle, Washington. *Must have proof of legal authority to work in the United States.* Working conditions: 40 hours per week; 8 a.m. to 5 p.m., Monday to Friday. Salary range: \$32,000 to \$34,000 per annum, DOE. Please send résumé by 31 December 1990 to: **Employment Security Department, ES Division, Job # 235516, Olympia, WA 98504.** *Equal Opportunity Employer.*

## POSITIONS OPEN

Rhone Merieux, Inc., has openings for **SCIENTISTS, ASSISTANT SCIENTISTS,** and **TECHNICIANS** in research/development/manufacturing of veterinary vaccines and diagnostic products. Positions require either B.S., M.S., Ph.D., D.V.M., or equivalent education/experience. Industrial background in virology and bacteriology highly beneficial.

We offer competitive salary/benefits program with opportunity for advancement. Please submit curriculum vitae, transcripts, and salary requirements in confidence to: **M. J. Holcomb, Rhone Merieux, Inc., 115 Trans-tech Drive, Athens, GA 30601.**

**MATERIALS SCIENTIST.** For a university in southwestern Ohio. Individual will plan, conduct, and supervise research on the morphology of rigid-rod polymeric materials, molecular composites, carbon fibers, and nonlinear optical polymers and establish relationship between microstructure and physical properties including compressive strength, electric conductivity, and nonlinear optical property. Will apply various morphological techniques including small and wide angle x-ray scattering and electron microscopy. Will redesign or modify the current techniques and use synchrotron sources as well as develop necessary computer programs. Will also study the micro-mechanisms of deformation processes in rigid-rod polymeric materials. Will supervise the research efforts of one research technician. Requires Ph.D. in materials of polymer science. No experience required in above duties, but applicants will qualify with a minimum of 2 years of postdoctoral experience in each of the following specific areas: (i) polymeric materials research; (ii) wide angle x-ray diffractometer with pole figure device; (iii) small angle x-ray camera with double mirror focusing device and two-dimensional position-sensitive detector system; (iv) transmission electron microscopy; (v) computer programming (Fortran language); (vi) mechanical testing instruments (Instron or Multi Testing System). Forty hours per week, 7:45 a.m. to 4:30 p.m.; \$42,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **J. Davies, JO# 1266470, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

## COURSES AND TRAINING

### REACTION KINETICS SIMULATION COURSE

Understanding Complex Biological Systems by Computer Simulation: hands-on training using new PC software developed at Duke University by the National Biomedical Simulation Resource to simplify analysis of biochemical regulatory systems and pharmacokinetics; Introductory Course: 18 to 22 March 1991; Advanced Course: 14 to 16 May 1991. Brochure: **Cook College Office of Continuing Professional Education, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903.** Telephone: 908-932-9271; FAX: 908-932-8726.

## SITUATIONS WANTED

**BIOCHEMIST, Ph.D. (1985).** Experience in purification of protein, enzyme, cell culture, cDNA cloning and sequencing, antinuclear antibodies. Seeking research/industrial position. **Box 134, SCIENCE.**

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HOWARD HUGHES MEDICAL INSTITUTE

# POSTDOCTORAL RESEARCH FELLOWSHIPS FOR PHYSICIANS

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## 1991 Competition

25 Fellowships will be awarded to physicians by the Howard Hughes Medical Institute for three years of training in fundamental biomedical research. Awards, based on an international competition each year, focus on research directed to an understanding of basic biological processes and disease mechanisms. Fellowships may be held at any academic or research institution including but not limited to Hughes laboratories.

- **Fellowship Terms** • Three years of support
  - Full-time fundamental research
  - \$35,000-\$50,000 annual stipend
  - \$15,000 research allowance
  - \$12,000 institutional allowance
- **Eligibility**
  - M.D., M.D./Ph.D., or D.O., with the M.D. or D.O. awarded no earlier than 1982
  - At the start of the fellowship
    - at least two years of postgraduate clinical training completed
    - no more than two years of postdoctoral research training completed
  - Applicants (and fellows) may not have faculty appointments
  - Fellows may not be enrolled in graduate degree programs
  - No citizenship requirements; U.S. citizens may study abroad, others must study in the United States
- **Schedule**
  - Application deadline: March 1, 1991
  - Awards announced: September 1991
  - Fellowships start: January 1, 1992 - September 1, 1992

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## FOR 1991 PROGRAM ANNOUNCEMENTS AND APPLICATIONS

Howard Hughes Medical Institute  
Office of Grants and Special Programs  
Postdoctoral Research Fellowships for Physicians  
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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.

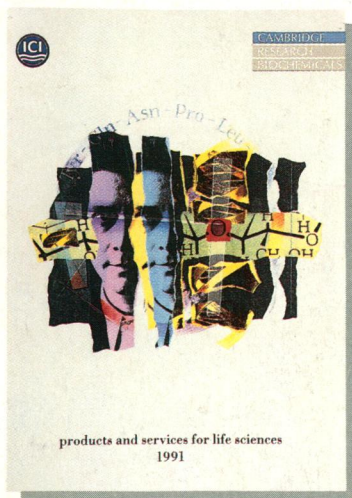
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