# - Science

## PERSONNEL PLACEMENT

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For rates and information about fractional display ads (all ads ½ page and larger) and all Marketplace listings, contact: Science Classified Advertising Deborah Cummings Telephone: 202-326-6541

> Janis Crowley, Recruitment Advertising Manager Telephone: 212-496-7704 FAX: 202-682-0816

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#### POSITIONS OPEN

#### ASSISTANT PROFESSORS OF BIOLOGY

Worcester State College invites applications for three full-time tenure-track Assistant Professor positions and a temporary one-year Assistant Professor appointment, starting in September 1993. Requirements include a Ph.D., strong commitment to teaching, and promise in research. Familiarity with liberal arts college education, teaching experience and/or postdoctoral training are desirable. We expect candidates to teach introductory courses, upper level electives and help expand our undergraduate research program.

graduate research program. Areas of specialty sought include: (1) Biotechnology (Industrial experience preferred); (2) Microbiology; (3) Cellular Physiology; (4) Animal Physiology. Letters of interest and curriculum vitae (both required before you receive our formal application packet and supplemental information) should be sent to: Director of Personnel and Affirmative Action, Worcester State College, Worcester, MA 01602–2597. Screening of candidates will begin immediately; applications will be accepted until 5 February 1993. Worcester State College is an Affirmative Action/Equal Opportunity Employer.

#### ASSISTANT PROFESSOR MOLECULAR BIOLOGIST

The Biology Department of The Citadel invites applications for a tenure-track position in molecular biology for the Fall 1993 semester. The Citadel is a nationally recognized liberal arts college, with a military format. The student body includes 2000 undergraduate cadets and 1500 graduate and evening students. Applicants should have a Ph.D. in biology or a related field and should be committed to teaching and research in a liberal arts institution. Development of a research program suitable for involvement of undergraduates is required and the candidate will be expected to compete for extramural funding. The candidate's primary responsibilities will be developing a molecular biology program, teaching microbiology and participating in the department's introductory courses. Please send a letter of application to include a synopsis of teaching and treesarch interests, curriculum vitae, selected reprints, and the names, addresses, and telephone numbers of three references to: Dr. F. Lance Wallace, Department of Bioogy, The Citadel, Charleston, SC 29409 (Telephone: 803-792-5203). Application review will begin on February 5, 1993, and will continue until the appointment is made. The Citadel is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from minorities and women.

The Anatomy Department of the Medical College of Ohio is reopening its search for a tenure-track or tenured **NEUROBIOLOGIST** studying neural organization at the molecular, cellular, or system level. Applicants for an **ASSISTANT PROFESSORSHIP** should have demonstrated the ability to establish an independent and funded research program. Applicants for more senior appointments should have ongoing and funded programs. Teaching responsibilities will be in histology. The Medical College and the Department of Anatomy offer excellent core facilities, very competitive salaries, and generous start-up funds. Forward curriculum vitae and the names of three to four references by February 15, 1993 to: Dr. John T. Wall, Faculty Search Committee, Department of Anatomy, Medical College of Ohio, Toledo, OH 43699–0008. Equal Opportunity Employer.

#### ASSISTANT PROFESSOR/IMMUNOLOGY

Two tenure-track positions at the Maisonneuve-Rosemont Hospital Research Center, affiliated to the University of Montreal. Expected starting date: Spring 1993. Applicants must have a Ph.D. with postdoctoral experience in Molecular Immunology. They are expected to join a group of six investigators (3 M.D. and 3 Ph.D.) and to develop an independent research program. Applicants should send curriculum vitae with a summary of present and future research interests and have letters from three references to: Dr. Claude Perreault, Director, Research Center, Maisonneuve-Rosemont Hospital, 5415 L'Assomption Boulevard, Montreal, Quebec, Canada H1T 2M4.

#### **POSITIONS OPEN**



UNIVERSITY OF PENNSYLVANIA Department of Physiology School of Medicine

The Department of Physiology seeks to fill a tenuretrack position, preferably at the **ASSISTANT PRO-FESSOR** level, in the area of **Transport Proteins**. Candidates expert in combining structure/function analyses and molecular biological techniques are especially encouraged to apply. Before March 15, 1993, please send us curriculum vitae, two reprints or preprints, and a statement of research interests. Also have three letters of reference sent to:

> Transport Protein Search Department of Physiology University of Pennsylvania Philadelphia, PA 19104–6085

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

#### FACULTY POSITION NEURAL SCIENCES

Medical College of Virginia/Virginia Commonwealth University is seeking candidates for a tenure-track position as ASSISTANT PRO-FESSOR in Neural Sciences in the School of Basic Health Sciences. Applicants must have an advanced degree (e.g., Ph.D., M.D. or equivalent degree) and should have two or more years of postdoctoral experience. The successful candidate is expected to be able to interact with a large and diverse group of Neurosciencists throughout the potential to develop and maintain an outstanding research program with extramural funding. Evidence of prior extramural funding and a researcher whose interests focus on Cognitive, Developmental, Molecular/Cellular and/or Systems Neuroscience, and which complement existing emphasis in visual/visuomotor, special senses, substance abuse and neuronal dysfunction/repair is preferred. The candidate is expected to demonstrate the potential to teach health professionals and graduate students. Candidates should send a copy of their curriculum vitae, names and addresses of 3 references, and a letter describing research interests by January 30, 1993 to: Dr. Barry E. Stein, Neural Science Curriculum, Box 493, Virginia Commonwealth University, Richmond, VA 23298–0493. Virginia Commonwealth University is an Equal Opportunity/Affirmative Action Employer. Women, minorities, and persons with disabilities are encuraged to apply. Position description available upon request.

#### DEPARTMENT OF BIOCHEMISTRY James H. Quillen College of Medicine ASSISTANT PROFESSOR

The Department of Biochemistry invites applications for the tenure-track position of assistant professor. Qualifications for the position include demonstrated ability for imaginative research, interest in graduate and medical student teaching, and at least two years of postdoctoral experience. Candidates interested in using biochemical and physical-chemical approaches to investigate the chemistry of membrane-related functions such as receptors and/or signal transduction are preferred.

tors and/or signal transduction are preferred. The successful applicant will be expected to develop a funded independent research program, to teach medical students, and to participate in the Ph.D. program in biomedical sciences.

Submit curriculum vitae, bibliography, summary of research interests (including plans for future work), and the names of three references by February 15, 1993 to: Dr. M. Lou Ernst-Fonberg, Chair, Department of Biochemistry, Box 70581, James H. Quillen College of Medicine, East Tennessee State University, Johnson City, TN 37614–0581.

ETSU is an Affirmative Action/Equal Opportunity Employer.



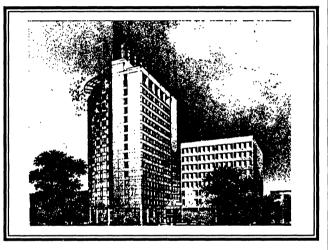
# The Graduate School Baylor College of Medicine Houston, Texas

# Research Training Opportunities in the Biological Sciences

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- **Department of Biochemistry:** Dr. Rod Kellems, Director of Graduate Studies (713) 798-4527.
- Center for Biotechnology: Dr. Michael Hogan, The Center for Biotechnology, 4000 Research Forest Drive, The Woodlands, TX 77381. (713) 363-8404.
- **Program in Cardiovascular Sciences:** Dr. J. C. Allen, Program Director, Dept. of Medicine. (713) 798-4977.
- Department of Cell Biology: JoKaye Highstrete, Administrator. (713) 798-4598.
- **Program in Cell and Molecular Biology:** Debbie Martin, Administrator. (713) 798-6557
- Program in Developmental Biology: Debbie Martin, Administrator. (713) 798-5197.
- Dept. of Microbiology and Immunology: Dr. Dorothy Lewis, Director of Graduate Studies. (713) 798-6427
- Institute for Molecular Genetics: Dr. Craig Chinault, Director of Graduate Studies. (713) 798-5056.
- Dept. of Molec. Physiology and Biophysics: Dr. William Schilling, Director of Graduate Studies. (713) 798-4700.
- Division of Molecular Virology: Dr. R. F. Ramig, Director of Graduate Studies. (713) 798-4830.
- Division of Neuroscience: Dr. Dan Johnston, Director of Graduate Studies. 1-800-367-9149.
- Department of Pharmacology: Dr. Ram Reddy, Director contact schrader@bcm.tmc.edu.) of Graduate Studies. (713) 798-7906.
- M.D./Ph.D. Program: Drita Almeida, Administrator. (713) 798-6613.
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## To receive an application package

## call or write to:

The Graduate School Office of Admissions Baylor College of Medicine Houston, TX 77030 U.S.A. tel.: (713) 798-4060 (or 4028) FAX: (713) 798-6325 (For information on how to apply to these programs electronically, contact schrader@bcm.tmc.edu.)

Baylor College of Medicine is a private, nonsectarian research institution and an equal opportunity employer. The Graduate School welcomes applications from minority and foreign applicants.

ASSISTANT PROFESSORS, Biological Sciences, University of South Alabama. Two tenure-track positions beginning in Fall 1993. Ph.D. in biological sciences required, postdoctoral experience desirable. Candidates should have a commitment to teaching and show evidence of participation in extramurally funded research. Main teaching responsibilities are in Invertebrate Biology including Parasitology for one position and in Plant Physiology and Introduction to Nonvascular Plants for the other. Opportunity for development of graduate courses in the candidates' areas of specialization will also be provided. Initial teaching load reduced to allow time for required development of research program. Salary competitive. Graduate programs include the M.S. in Biology and Ph.D. in Marine Sciences. The Department of Biological Sciences has 14 full-time faculty and modern research facilities. USA has 12,000 students, 8 colleges, many M.S. programs, 4 Ph.D. programs, and includes a comprehensive medical center. The location is a wooded campus in a mild Gulf Coast environment. Send a letter of application, curriculum vitae, and names, addresses and telephone numbers of at least 3 references to: Dr. John A. Freeman, Chair, Department of Biological Sciences, University of South Alabama, Mobile, AL 36688 (Telephone: 205-460-6331). Deadline for receipt of applications is February 26, 1993. An Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR—BIOLOGY TEMPLE UNIVERSITY

The Biology Department at Temple University is seeking a faculty member at the assistant professor level. The appointee would be expected to develop an active research program and to participate in graduate and undergraduate teaching. The candidate should have research interests in using molecular or biochemical approaches for the study of neural development and/or physiology. The department is broadly based, with 24 faculty and an established graduate program leading to the M.A. and Ph.D. degrees. For further information call (215) 787-8854. Candidates should submit research plans, curriculum vitae, and ask three referees to send letters of recommendation to: Dr. Joel B. Sheffield, Chair, Department of Biology, Temple University, Philadelphia, PA 19122. Application Deadline: February 1, 1993. An Equal Opportunity/Affirmative Action Employer.

EVOLUTIONARY BIOLOGY. The Department of Biology, Vanderbilt University, invites applications for a tenure-track position at the level of ASSISTANT PROFESSOR. The successful candidate will be expected to develop a strong, externally funded research program using modern techniques to address questions concerned with some aspect of the evolutionary biology of plants or animals. Areas of interest include, but are not limited to: plant/insect or parasite/host coevolution, systematic biology, and macroevolution. Those using phylogenetic approaches to answer questions in these areas are especially encouraged to apply. Teaching responsibilities will complement the needs of the department and will include a course in the candidate's area of specialization. This position is pending final administrative approval. Applicants should submit curriculum vitae, including a description of research interests, and arrange to have three letters of recommendation sent by February 1, 1993 to: Dr. David E. McCauley, Evolutionary Biology Search Committee, Department of Biology, Box 1812B, Vanderbilt University, Nashville, TN 37235. Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.

The Department of Psychology invites applications for a tenure-track **ASSISTANT PROFESSOR** position beginning July 1, 1993, in biological psychology/animal behavior. Persons with research interests in animal learning, memory, and cognition; evolution and development of learning; learning in natural settings or neural substrates of learning are particularly encouraged to apply. Exceptional candidates who work in other aspects of animal behavior will also be considered. Interested applicants should send by January 8, 1993, complete curriculum vitae, selected reprints and three letters of reference to: **Biological Psychology Search Committee, Department of Psychology, University of California, Berkeley, CA 94720**. Applications postmarked after the deadline will not be considered. *The University of California is an Equal Opportunity/Affirmative Action Employer*.

#### **POSITIONS OPEN**



UNIVERSITY OF PENNSYLVANIA Department of Physiology School of Medicine

The Department of Physiology seeks to fill a tenuretrack position, preferably at the **ASSISTANT PRO-FESSOR** level, in the area of **Cellular Motility**. Candidates combining biophysical and molecular approaches are especially encouraged to apply. Before March 15, 1993, please send curriculum vitae, a statement of research interests, and two reprints or preprints. Also arrange to have three letters of reference sent to:

Motility Search Department of Physiology University of Pennsylvania Philadelphia, PA 19104–6085

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

#### ASSISTANT PROFESSOR—BIOCHEMISTRY

The Chemistry Department of Denison University, Granville, Ohio is seeking applications for a tenure-track position starting in the fall, 1993. Ph.D. in Biochemistry or Ph.D. in Chemistry with a biochemistry emphasis required. Main teaching responsibilities would include two semesters of biochemistry, with laboratory. Other teaching responsibilities in general, organic or analytical chemistry will depend on background and experience of the candidate. The successful candidate will have a strong commitment to teaching and research with undergraduates. Research area is open; funds to initiate research will be available. Denison University is a private, liberal arts college located in central Ohio about 27 miles east of Columbus. The Chemistry department is equipped with major research and instructional instrumentation including high field FTNMR, FTIR, HPLC, GCMS, UV-VIS, STM and powder X-RAY diffraction. Significant laboratory space and a cold room are available in both chemistry and in the neighboring biology department. The Chemistry Applications should include undergraduate and graduate transcripts, a brief statement of teaching philosophy, research plans and three letters of recommendation. Send to: Dr. George Gilbert, Chair, Department of Chemistry, Denison University, Granwille, OH 43023. We will begin reviewing applications on February 5, 1993 and will continue until the position is filled. *Denison University is an Equal Opportunity/ Affirmative Action Employer. Women and minorities are encouraged to apply*.

#### ELECTRON MICROSCOPIST PLANT ANATOMIST

The Biology & Microbiology Department, University of Wisconsin–Oshkosh is seeking applicants for a tenuretrack **ASSISTANT PROFESSOR** to begin September 1993. Teaching responsibilities will be Electron Microscopy, introductory biology and plant anatomy. Applicant will maintain electron microscopy equipment, including TEM and SEM, and assist faculty and students with research. Candidate is expected to develop a research program in plant biology, pursue extramural funding and supervise master's theses. Postdoctoral and teaching experience desirable. Application deadline is 19 February 1993. Send application letter, résumé, 3 current letters of recommendation and transcripts to: M. A. Rouf, Chair, Department of Biology & Microbiology, UWO, Oshkosh, WI 54901. The University of Wisconsin–Oshkosh is an Affirmative Action/Equal Opportunity Employer.

BIOLOGIST: Developmental or Evolutionary, AS-SISTANT PROFESSOR, tenure-track, Ph.D., start fall 1993. Develop and teach year-long entry level course in biological diversity (animals and plants), advanced courses in specialty, fill periodic needs arising from hexennial leaves, participate periodically in interdisciplinary, values-oriented general education. Research expected, preferably utilizing molecular techniques or marine organisms. Send résumé, transcripts, three recommendation letters by February 20, 1993, to: Dr. John Ferguson, Eckerd College, P.O. Box 12560, St. Petersburg, FL 33733. Equal Opportunity Employer.

#### POSITIONS OPEN

#### ASSISTANT PROFESSOR Department of Biomolecular Chemistry University of Wisconsin–Madison

An assistant professor position will be available on January 1, 1994 for a person with strong biochemical research and teaching interests. The abilities of the applicant are more important than the particular area of research interest. Department faculty have active basic and applied research programs in biological chemistry, molecular biology and molecular genetics, with an emphasis on the structure and function of proteins and nucleic acids, cellular control mechanisms and hormone action. Department faculty also have teaching responsibilities for graduate, medical and health science students. Applicants should have at least two years of biochemical postdoctoral research experience. They should submit curriculum vitae, bibliography, letters of reference from three persons knowledgeable of the candidate's research or teaching abilities, and a one or two-page statement of future research interests to: Dr. James E. Dahlberg, Chair, Faculty Search Committee, Department of Biomolecular Chemistry, University of Wisconsin Medical School, 587 Medical Sciences Building, 1300 University Avenue, Madison, WI 53706, by May 1, 1993.

The University of Wisconsin is an Equal Opportunity/ Affirmative Action Employer. Applications from qualified women, minorities, and/or disabled individuals are encouraged.

#### THE DEPARTMENT OF PATHOLOGY UNIVERSITY OF CALIFORNIA, SAN FRANCISCO SCHOOL OF MEDICINE ASSISTANT PROFESSOR DEPARTMENT OF PATHOLOGY AND PROGRAM IN MOLECULAR MEDICINE

The Department of Pathology and the Program in Molecular Medicine, University of California, San Francisco School of Medicine, invite applications for a tenuretrack position, in the area of Cancer Biology, Immunology, or Growth Factors. Applicants must have an M.D., M.D./Ph.D., or Ph.D., and will be expected to establish an independent, externally funded research program. In addition to participation in research, teaching, and clinical (if applicable) responsibilities of pathology, the candidate will be a member of the newly established Program in Molecular Medicine, a branch of our highly successful and integrated Program in Biology Sciences. Applicants may apply for openings for July 1993 or 1994. Please send curriculum vitae to: Pathology and Molecular Medicine Search Committee, Department of Pathology, University of California, San Francisco, CA 94143–0506. An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

PHYSIOLOGIST: Tenure-track ASSISTANT PROFESSOR to teach undergraduate and graduate human physiology and undergraduate anatomy. Expertise in neurophysiology and experience teaching medical, nursing, and/or physical therapy students desirable. Earned doctorate required. Review of applications will begin January 11, 1993 and will continue until the position is filled. Curriculum vitae and names of three references to: Dr. Brian Curry, School of Health Sciences, Grand Valley State University, Allendale, MI 49401–9403. Equal Opportunity/Affirmative Action/ADA Employer.

#### MIAMI UNIVERSITY HAMILTON CAMPUS

Tenure-track ASSISTANT PROFESSORSHIP in Zoology available August, 1993. Ph.D. in zoology/ biology required. Teach courses in the first two years of baccalaureate program and human anatomy and physiology. Advancement dependent on combination of teaching, professional service, and scholarship, with primary emphasis on teaching. Miami University is a state-assisted institution in southwest Ohio. The Hamilton Campus, 16 miles from the main campus, is a commuter regional campus with 2,200 students. Qualified persons should submit curriculum vitae, descriptions of teaching and scholarship interests, and should arrange for three letters of recommendation and transcripts of all academic work to be sent to: Dr. D. H. Taylor, Chair of Zoology, Miami University, Oxford, OH 45056. Application review will begin January 22, 1993 and continue until position is filled. Miami University offers Equal Opportunity in employment and education.



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The Department of **Clinical Neurosciences (Psychiatry, Neuropharmacology)** has the following challenging opportunities in the clinical development of novel drugs for the treatment of diseases of the central nervous system:

#### Senior Clinical Research Scientist I/II

#### (Pos. #63717-19, #64411-19, #64412-19)

Position will be filled at the Senior Clinical Research Scientist I or Senior Clinical Research Scientist II level. The level of responsibility to be assigned will depend on the individual applicant's educational background and experience level.

Senior Clinical Research Scientist I: Candidates must have a Master's degree in a biological, physical, health or other related science (or Doctor of Pharmacy degree) PLUS 8 years of clinical/research experience (e.g. employment in a patient care setting, such as nursing or pharmacy; clinical laboratory experience; experience as a clinical research monitor/coordinator) OR a Ph.D. in a biological, physical, health or other related science PLUS 5 years of clinical/research experience (as described above).

Senior Clinical Research Scientist II: Candidates must have a Master's degree in a biological, physical, health or other related science (or Doctor of Pharmacy degree) PLUS 10 years of clinical/research experience (e.g. employment in a patient care setting, such as nursing or pharmacy; clinical laboratory experience; experience as a clinical research monitor/coordinator) OR a Ph.D. in a biological, physical, health or other related science PLUS 7 years of clinical/research experience (as described above).

Other factors to be considered in selection for either position include experience with clinical research methodology/activities (e.g. study design, site monitoring) and computer experience.

We also have the following opportunities in the Department of **Clinical Neurosciences** as well as the Department of **Infectious Diseases and Immunology** which offers drug development challenges focusing on major viral diseases:

### **Clinical Research Scientist I/II**

(Clinical Neurosciences: POS. #63403-19, #64408-19, #64409-19) (Infectious Diseases & Immunology: POS. #63389-19, #64075-19, #64403-19)

Positions will be filled at the Clinical Research Scientist I or Clinical Research Scientist II level. The level of responsibility to be assigned will depend upon the individual applicant's educational background and experience level.

**Clinical Research Scientist I:** Must have a Master's degree in a biological, physical, health or other related science or Doctor of Pharmacy degree with a minimum of 4 years of clinical/research experience (e.g. employment in a patient care setting, such as nursing or pharmacy; clinical laboratory experience; experience as a clinical research monitor/coordinator) **OR** a Ph.D. in one of the disciplines described above, with minimum of 1 year of clinical/research experience. Scientific writing assessment.

Clinical Research Scientist II: Must have a Master's degree or Doctor of Pharmacy degree with 6 years of clinical/research experience as described above OR a Ph.D. with 3 years of clinical/research experience. Scientific writing assessment.

Other factors to be considered for both positions include experience with clinical research methodology/activities (e.g. study design, site monitoring) and computer experience. Will require frequent travel.

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UNIVERSITY OF PENNSYLVANIA Department of Physiology School of Medicine

Applications are encouraged from persons applying molecular biological and biophysical techniques to the study of **Ion Channels** for a tenure-track position in Physiology. Preference will be shown to applicants at the level of **ASSISTANT PROFESSOR**. Please send us (before March 15, 1993) curriculum vitae, a statement of research interests, and two reprints or preprints of rele-vant papers. Also arrange to have three letters of reference sent to:

## Ion Channel Search Department of Physiology University of Pennsylvania Philadelphia, PA 19104-6085

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

Beaver College, Glenside, PA 19038—Tenure-track, ASSISTANT PROFESSOR positions, Fall 1993. Comprehensive college; 2,000 undergraduate and graduate students. Application review begins January 15, 1993. Strong commitment to diversity; women and minority 1995. Strong communent to auversity, women and minority candidates urged to apply. **Biology**: Teach 2-semester interdisciplinary non-majors course, microbiology. Ph.D. required, specialty in molecular biology. Dedica-tion to teaching, and undergraduate research. Send letter describing research goals and teaching interests, curricu-lum vitae, and 3 letters of recommendation to: Archie J. Num vitae, and s letters of recommendation to: Arche J. Vomachka, Chair, Biology. Science Education: Teach elementary and secondary science education, coordinate graduate science programs, participate in interdiscipli-nary undergraduate science course. ABD and teaching experience required; doctorate preferred. Send letter with curriculum vitae and names of 3 references to: Jeff Shultz, Chair, Education.

ASSISTANT PROFESSOR of Physiology. Tenure-track position. Joint appointment in Surgery-ENT/Phys-iology. Develop and direct new research in secretory function of dark cells in inner ear. Postdoctoral experi-ence required. Salary \$35,000 or higher depending on qualifications. Send letter and curriculum vitae to: William Davis, M.D., Division of ENT, One Hospital Drive, MA314, Columbia, MO 65212. University of Missouri is an Eaual Opportunity and Affirmative Action Missouri is an Equal Opportunity and Affirmative Action Employer. Women and minorities are encouraged to apply.

DEVELOPMENTAL BIOLOGIST. The Department of Biological Science of Florida State University invites applications for a tenure-track faculty position in Developmental biology at the level of ASSISTANT PROFESSOR, although outstanding senior level applications will be considered. The selected candidate will be cations will be considered. The selected candidate will be expected to develop a vigorous, independent research program applying modern molecular methods to re-search in developmental biology, and to teach human development to medical students. Opportunities exist for interaction with ongoing programs in cell and molecular biology, structural biology, and neuroscience, and par-ticipation in associated graduate programs. Submit cur-riculum vitae, a concise description of research interest, and the names addresses and telenbone numbers of riculum vitae, a concise description of research interest, and the names, addresses, and telephone numbers of three references to: Dr. Laura R. Keller, Developmen-tal Biology Search Committee, Program in Medical Sciences, 34 Montgomery R-115, Florida State Uni-versity, Tallahasse, FL 32306-4051. Review of ap-plications will begin February 15, 1993. Florida State University is an Equal Opportunity/Affir-meting Action Fempleric

mative Action Employer.

Due to departmental growth, applications are invited for one ASSISTANT PROFESSOR position beginning August 1993 (Ph.D. required). A zoologist with the ability to teach comparative anatomy, as well as general biology, is sought. In addition to teaching duties, the candidate is expected to advise majors. Xavier University is a historically African–American, Catholic liberal versity is a historically African-American, Catholic hoera arts institution, and is an Equal Opportunity Employer. Application deadline: 7 January 1993 (or until filled). Send résumé, official graduate transcripts, and three letters of recommendation to: Willie J. Caffey, Jr., Chairman, Search Committee, Biology Department, Box 85-B, New Orleans, LA 70125.

**POSITIONS OPEN** 

VISITING ASSISTANT PROFESSOR BIOLOGY DEPARTMENT

ing in animal physiology. Teaching responsibilities in-clude courses in General Animal Physiology and Verte-

brate Physiology and two other courses commensurate with the candidate's training. A strong commitment to

teaching in a liberal arts environment is essential. Ph.D.

preferred. Send curriculum vitae, a statement of teaching

Dr. Thomas Budd

Biology Department St. Lawrence University

Canton, NY 13617

Completed applications will be considered beginning January 15, 1993.

cultural diversity in its faculty, staff, student body and pro-grams of instruction. As an Equal Opportunity/Affirmative Action Employer, we specifically encourage applications from

ASSISTANT PROFESSOR. The Center for Pharmaceutical Biotechnology invites applications for assist-

ant professor in either protein/genetic applications for assist pharmaceutical biotechnology product formulation with application to pharmaceutical design or development, available September, 1993. Ph.D. and postdoctoral expe-rience required. Responsibilities include developing a strong, externally funded research program, and teaching in the available professional program. The Center

strong, externally funded research program, and teaching in the graduate and professional programs. The Center for Pharmaceutical Biotechnology environment fosters collaboration and cooperation, bringing together cam-pus researchers from the full range of biotechnology-related disciplines. In addition to appointment within the Center, the successful candidate will have a tenure-track appointment within a College of Pharmacy basic science department. For full consideration, curriculum vitae, description of research interests, and three letters of reference should be forwarded by 29 January 1993 to: Dr. Michael E. Johnson, Interim Director, Center for Pharmaceutical Biotechnology (m/c 874). University

Pharmaceutical Biotechnology (m/c 874), University of Illinois at Chicago, P.O. Box 6998, Chicago, IL 60680–6998. The University of Illinois is an Affirmative

**BIOLOGY: ONE FACULTY POSITION.** 

Action/Equal Opportunity Employer.

women, persons of color, and the disabled.

St. Lawrence University is committed to fostering multi-

interests and three letters of recommendation to:

St. Lawrence University's Department of Biology has an opening for a visiting Assistant Professor with train-

#### ASSISTANT/ASSOCIATE PROFESSOR BIOCHEMISTRY/MOLECULAR BIOLOGY MOREHOUSE SCHOOL OF MEDICINE

The Morehouse School of Medicine invites applications for a regular faculty appointment at the level of Assistant or Associate Professor in the Department of Biochemistry. Candidates must have a doctoral degree and strong grounding in biochemistry and cellular pro-cesses at the molecular level. Candidates for Associate Professor should have established and currently funded research programs, a record of research productivity and several years of medical/graduate school teaching experi-ence. Candidates for Assistant Professor should have ence. Candidates for Assistant Professor should have strong research training, postdoctoral experience, evi-dence of productivity and independence in research, and some teaching experience. Morehouse School of Medi-cine is a new, expanding private medical school with a commitment to the professional development of minor-ity biomedical faculty and students. *American minorities* are particularly encouraged to apply. Please send detailed curriculum vitae including a description of research interests and experience and names of three references to: Dr. Curtis Parker, Associate Dean for Biomedical Sciences, Morehouse School of Medicine, 720 West-view Drive S.W., Atlanta, GA 30310–1495. FAX: 404-752-8443.

ASSISTANT/ASSOCIATE PROFESSOR ENVI-RONMENTAL HEALTH SCIENCES. Applications invited for tenure-track faculty position to conduct re-search and teach graduate-level courses in environmental analytical chemistry and impact assessment. Research emphasis on coastal environments desirable. Prerequisites: doctorate and demonstrated research strengths complementary to an interdisciplinary graduate program in environmental quality assessment and hazardous materials management. Submit curriculum vitae, statement of teaching/research interests, and names and addresses of three references before February 1, 1993, to: Dr. H. McKellar, Search Committee Chair, Department of Environmental Health Sciences, University of South Carolina, Columbia, SC 29208. The USC is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.

#### **GROSS ANATOMIST**

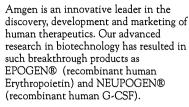
Department of Surgery, University of California, San Diego (UCSD): Tenure-track ASSISTANT PROFES-SOR position open to teach gross anatomy at the UCSD School of Medicine beginning July 1, 1993. This is mainly a teaching and research position, with some administrative responsibilities. It requires interest and ability to teach in the Medical School Core Gross Anatomy course and to offer and participate in elective teaching. The candidate must have a Ph.D. in anatomy and research competence of a degree to allow independent productivity and effective cooperative undertakings with others. Send curriculum vitae and names of three academic references to: N.A. Halasz, UCSD Medical Center, 200 West Arbor Drive, San Diego, CA 92103–8401. Salary per published UC scale. Equal Opportunity/Affirmative Action Employer. Closing date February 28, 1993.

MOLECULAR BIOLOGIST. The Department of Biology at the University of Missouri-St. Louis is seck-ing a Molecular Biologist. The position, to start August 1993, is tenure-track at the ASSISTANT or ASSOCI-ATE PROFESSOR level. Applicants at the assistant professor level should have a minimum of two years of postdoctoral experience. The successful candidate will be postdoctoral experience. The successful candidate will be expected to develop a strong research program, direct graduate student research, and contribute to the devel-opment of the Biotechnology Program. We seek scien-tists of exceptional quality irrespective of their specific research interests; however, we especially encourage ap-plications from candidates whose interests might inter-near whose interests however here the approximation of the bas with a computation grave the program in plications from candidates whose interests might inter-face with or complement existing research programs in molecular evolution, developmental biology, or plant molecular genetics. Applicants with industrial research experience will also be considered. Teaching responsibil-ities include a biotechnology lecture/lab course and a graduate or undergraduate course in the applicant's area graduate or undergraduate course in the applicant's area of expertise. This position will offer competitive salary and laboratory set-up funds. Send curriculum vitae, statement of research and teaching interests and three letters of reference by 30 January 1993 to: Dr. Teresa Thiel, Chair, Molecular Biology Search Committee, Department of Biology, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, MO 63121-4499. The University of Missouri is an Equal Opportunity/Affirmative Action Employer committed to ex-cellence through diversity. cellence through diversity.

HYPERTENSION & VASCULAR RESEARCH-A full-time, tenure-track faculty position at the level of ASSISTANT, ASSOCIATE, or FULL PROFESSOR is open in the Section of Hypertension and Vascular Research in the Division of General Internal Medicine at the Univer-sity of Texas Medical Branch (UTMB) on Galveston Island. Candidates must have an M.D. and/or Ph.D. degree, demonstrate ability to gain independent funding, and be eager to join a growing research group with collaborative initiatives at both basic and clinical levels. Expertise in one of the following areas would be valuable: Vascular or endothelial cell biology as it relates to hypertension or atherosclerosis, transgenics, molecular mechanisms of hormone action, and gene therapy. Please submit curriculum vitae and names of three references to: Richard Bukeski, Ph.D., Head of Search Committee, Hypertension and Vascular Research J-65, University of Texas Medical Branch, Galveston, TX 77555–5146. Equal Opportunity/Affirmative Action Employ-er M/F/D/V. UTMB is a smoke-free/drug-free workplace. UTMB hires only individuals authorized to work in the U.S.

The Department of Physiology of the Ponce School of Medicine announces an immediate opening for appli-cants with an interest in cardiovascular physiology. It is preferred to fill the position at the INSTRUCTOR/ ASSISTANT PROFESSOR level. A Ph.D. is required. Applicants must also have a strong commitment to assist in the teaching of medical physiology and advanced graduate courses. Curriculum vitae, statement of teach-ing and research interests, and the names of three references should be sent to: Dr. Howard Mass, Chairman, Department of Physiology, Ponce School of Medi-cine, P.O. Box 7004, Ponce, Puerto Rico 00732. Ponce School of Medicine is an Equal Opportunity Employer.

# A Thriving Environment For Research



We currently have the following opportunities for a Research Scientist and a Research Associate:

### **RESEARCH SCIENTIST**

#### DNA SEQUENCING

Â

The DNA Sequencing Laboratory currently has a position available for a Scientist with a Ph.D. in Molecular Biology or Biochemistry plus two years postdoctoral experience. Special consideration will be given to molecular biologists with experience in cDNA cloning, subtractive hybridizations, normalization of cDNA libraries, DNA sequencing and computer analysis of DNA sequence. Job Code #S-507

#### RESEARCH ASSOCIATE PHARMACEUTICS & DRUG DELIVERY

This position will involve *in vitro* as well as *in vivo* studies of uptake, processing and delivery using novel drug carriers such as liposomes and polymers. Must have a BS degree or equivalent in Biochemistry or Cell Biology, have an interest in drug delivery and like working in a team-oriented environment. Job Code #S-508

If you have the necessary qualifications and would like to be part of an organization that places its highest value on the contributions of its people, send your CV indicating Job Code # to: Amgen Inc., Staffing Department (Mail Code 10-1-A-411), Amgen Center, Thousand Oaks, CA 91320-1789. Amgen is an Equal Opportunity Employer.





### Deutsches Krebsforschungszentrum Stiftung des öffentlichen Rechts

The Division of Applied Tumor Virology invites applications for the position of a

# **Postdoctoral Research Associate**

to work on a project on the localisation and analysis of evolutionary conserved and transcribed sequences as an essential part in the identification of genes responsible for human mutations. Applicants are invited for a postdoctoral position in the laboratory of Dr. Annemarie Poustka to participate in the development of techniques to allow the identification of transcribed and conserved sequences, and to apply these in the identification of genes for human disorders.

The position is available immediately and is tentatively restricted until December 31, 1993.

Applications should be addressed to:

(W0300)A

Deutsches Krebsforschungszentrum, IFN 280, 6900 Heidelberg, Tel: 0049-6221-42 3409 Fax: 0049-6221-470 333



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# SR. RESEARCH SCIENTIST

This position requires an Immunochemist with a PhD and at least two years of postdoctoral training in either Immunology or Cell Biology. Applicants should be expert in ELISA and RIA methodology and have experience in assaying proteins and synthetic molecules. Applicants should be capable of supervising two technicians and working effectively within a multidisciplinary team of scientists. Individuals with a strong research interest in either cytokine biology or inflammation and who are capable of establishing a research program in one of these areas are particularly encouraged to apply.

We offer attractive compensation and generous health, medical and relocation benefits. Resumes, including salary history and objectives, should be forwarded in confidence to: **Miles Inc.**, **Pharmaceutical Division**, **Dept. AAPS, 400 Morgan Lane, West Haven, CT 06516.** 

An Equal Opportunity Employer M/F/D/V

IMMUNOPATHOLOGIST/CLINICAL IMMU-NOLOGIST—The Department of Pathology at The Ohio State University seeks an individual, at the AS-SISTANT or ASSOCIATE PROFESOR level, with specialty training and certification (or eligibility) in clinical immunopathology. The individual will serve as Associate Director of a large clinical immunology laboratory and will be expected to pursue a funded research program in immunology, preferably with relevance to transplantation pathobiology. The position involves participation in medical education at the undergraduate, graduate, and resident levels. Interested individuals with curriculum vitae and the names of three references, by February 15, 1992, to: Daniel D. Sedmak, M.D., Department of Pathology. The Ohio State University, 139 Hamilton Hall, 1645 Neil Avenue, Columbus, OH 43210–1238.

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

#### PALEOBOTANIST Department of Integrative Biology University of California at Berkeley

Applications are invited for a tenure-track position as ASSISTANT PROFESSOR in the Department of Integrative Biology and ASSISTANT CURATOR in the Museum of Paleontology, starting July 1, 1993. Candidates should have an outstanding program of theoretical and empirical research in a major field of paleobotany, and should have a strong interest in undergraduate and graduate teaching. The appointee will join an interdisciplinary group of paleontologists, botanists, and zoologists comprising the Berkeley Natural History Museums and the Department of Integrative Biology in the new Valley Life Sciences Building. Applications, including curriculum vitae, a list of publications of remits of the three more circifecture

Applications, including curriculum vitae, a list of publications, a reprint of the three most significant publications, a brief (2 pages maximum) statement of research and teaching objectives, and three letters of evaluation, should be sent to: Chair, Paleobotany Search Committee, Department of Integrative Biology, University of California, Berkeley, CA 94720. The closing date for receipt of applications is January 29, 1993.

29, 1993. The University of California is an Equal Opportunity/ Affirmative Action Employer. Women and individuals from ethnic minorities traditionally underrepresented in the biological sciences are especially encouraged to apply.

#### CELL BIOLOGIST/MOLECULAR BIOLOGIST

The Institute of Chemical Toxicology (ICT), Wayne State University, is seeking to fill a tenure-track faculty position at the **ASSOCIATE/FULL PROFESSOR** level in the area of cell biology and/or eukaryotic molecular biology. Preference will be given to applicants interested in factors affecting cultured cell function, phenotypic characteristics, differentiation, regulation of gene expression, and also to those with experience in oncogenes, transcription factors, growth factors, retroviruses, and in the molecular/cellular effects of toxic substances and carcinogens (e.g., DNA repair). The ICT has 8 faculty actively engaged in research on regulation of gene expression, oncogene and tumor suppressor gene function, immunomodulation, immortalization and differentiated epithelial cell function, kinase-mediated signal transduction, cellular toxicity of metals and transgenic animals. The ICT has established a transgenic animal facility. The Institute of Chemical Toxicology offers a research-intensive environment and faculty are expected to develop independent, extramurally funded research programs. Excellent new laboratories, equipment, support facilities, and generous start-up funds are available. Candidates should have a Ph.D., M.D., or D.V.M. degree and a strong track record in research. Send curriculum vitae and a brief description of research interests to:

#### Dr. Raymond F. Novak Institute of Chemical Toxicology Wayne State University 2727 Second Avenue, Room 4000 Detroit, MI 48201

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

#### 1978

#### **POSITIONS OPEN**

#### THE UNIVERSITY OF MICHIGAN SCHOOL OF DENTISTRY POSITION IN TISSUE ENGINEERING

The University of Michigan School of Dentistry invites applications for a full-time tenure-track faculty position at the **ASSOCIATE** or **FULL PROFESSOR** level in the Department of Oral Medicine, Pathology, & Surgery. We are seeking an individual who has potential and/or demonstrated competence in the development of a program in the reconstitution of soft tissues in vitro for use as model systems in basic and applied research, or for use as grafts to replace damaged or diseased tissue(s) of the oral cavity. Candidates must have a Ph.D. and/or D.D.S./D.M.D. degree and appropriate postdoctoral or equivalent research experience. Rank will be commensurate with training and experience. The successful candidate will be expected to develop and maintain an extramurally funded research program of high quality and to participate in the professional and graduate teaching and/or service programs of the department. *The University of Michigan is an Equal Opportunity Employer; women and minority candidates are encouraged to apply.* Please submit curriculum vitae, six references, and a brief description (not to exceed one page) of potential research project(s) by February 28, 1993 to:

Peter J. Polverini, D.D.S., D.M.Sc. Chair, Search Committee University of Michigan School of Dentistry 1011 North University, Room 5217 Ann Arbor, MI 48109–1078 Telephone: (313) 936-2191 FAX: (313) 764-2469

#### FACULTY POSITION: DIVISION OF PEDIATRIC IMMUNOLOGY/RHEUMATOLOGY

A full-time tenure-track position as the third Attending Physician (fifth faculty member) is now available in the Division of Pediatric Immunology/Rheumatology at the level of ASSISTANT or ASSOCIATE PROFES-SOR, Northwestern University Medical School. This position has research, teaching, and clinical responsibilities. Applicants must be Board Certified/Board Eligible in Pediatrics and must have completed fellowship training in Immunology and/or Pediatric Rheumatology. Research funding, laboratory space and 70% protected time is a planned option for the eligible candidate. Salary is open for negotiation. The proposed starting date is June 1, 1993 or earlier. In order to ensure full consideration, the completed application must be received by March 1, 1993. Letters of inquiry should be sent to: Lauren M. Pachman, M.D., Chief, Division Immunology/Rheumatology, Box #50, The Children's Memorial Hospital, 2300 Children's Plaza, Chicago, IL 60614. Northwester University and the Children's Memorial Hospital are Affirmative Action/Equal Opportunity Employers. Hiring is contingent upon eligibility to work in the United States.

#### ASSOCIATE PROFESSOR PATHOBIOLOGY

The Department of Comparative and Experimental Pathology has a tenure-track position open for an experimental patholologist at the rank of associate professor beginning July 1, 1993. Applicants should have a Ph.D. degree or D.V.M./Ph.D. degrees and a record of accomplishment in research. Individuals with research programs focused on molecular pathogenetic mechanisms in infectious disease, inflammation, or immunology will be given preference. Excellent departmental research resources are available including laboratory space, technical support, research equipment, and adjoining research facilities and collaborative investigators in the Health Science Center and in the Institute of Food and Agricultural Sciences. The successful candidate will be expected to establish a productive research program and to participate with other faculty in the graduate education programs in experimental pathology and infectious diseases. Applicants should submit a letter of intent, curriculum vitae and the names of three references before January 31, 1993 to: Dr. William L. Castleman, Chairman, Department of Comparative and Experimental Pathology, College of Veterinary Medicine, P.O. Box 100145, University of Florida, Gainesville, FL 32610–0145. The University of Florida is an Affirmative

#### **POSITIONS OPEN**

#### SCIENCE EDUCATION

The University of Northern Iowa announces position at the ASSOCIATE or FULL PROFESSOR level beginning fall of 1993. Doctorate in science education or science discipline required. Candidate must have a demonstrated record of scholarly activity, publications in appropriate journals, successful grant writing, and excellence in teaching science education courses at the undergraduate and graduate level to warrant an appointment in a science department of the College of Natural Sciences. Teaching experience at elementary or secondary level and ability to work with K–12 teachers are preferred. Send letter of application, curriculum vitae, and names and addresses of four references to: Robert T. Ward, Chair of Science Education Search Committee, College of Natural Sciences, University of Northern Iowa, Cedar Falls, IA 50614–0181 (Telephone: 319-273-2585, FAX: 319-273-2893). Review of applications will begin January 15, 1993. The University of Northern Iowa is an Affirmative Action/Equal Opportunity Educator and Employer.

#### ASSOCIATE OR FULL PROFESSOR

Jefferson Medical College, Division of Pulmonary Medicine/Critical Care seeks accomplished investigator (M.D., Ph.D., or M.D./Ph.D.) to complement ongoing research in biochemistry and cell biology of airways inflammation and acute lung injury. In return for a significant institutional commitment, the applicant is expected to supervise a strong, extramurally funded research program and interact with other investigators in the institution. Investigators with expertise in the molecular biology of cytokines, signal transduction, regulation of gene expression, or molecular immunology are especially encouraged to apply, although a strong scientist in any complementary area will be considered. Opportunities for medical and graduate student teaching and patient care are available according to the applicant's training and desires. Applicants should send curriculum vitae and letter to: James E. Fish, M.D., Director, Pulmonary Medicine and Critical Care, Jefferson Medical College, 804 College Building, 1025 Walnut Street, Philadelphia, PA 19107–5083. FAX: (215) 955-2318. Equal Employment Opportunity College.

#### IMMUNOLOGIST

The Division of Basic Immunology at the National Jewish Center for Immunology and Respiratory Medicine is recruiting an experimental immunologist at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. We are seeking an outstanding individual to join our faculty of eight full-time basic researchers. Existing expertise at this institution includes T and B cell specificity, activation, and function; antigen presentation by class I and class II MHC molecules; effector functions of macrophages and neutrophils; and hematopoietic stem cell development. We wish to recruit a new faculty will become whose area of expertise will complement these interests. In addition to full-time research, new faculty will become members of the interdepartmental Graduate Program in Immunology at the nearby University of Colorado Health Sciences Center. Applications will be accepted until February 1, 1993, and the position will be available in the summer. Please send curriculum vitae, a statement of research interests, and the names and addresses of three references to: Prisciila A. Campbell, Ph.D., Immunology SGB, National Jewish Center for Immunology and Respiratory Medicine, 1400 Jackson Street, Denver, CO 80206. The National Jewish Center for Immunology and Respiratory Medicine is an Equal Opportunity/Affirmative Action Employer.

#### DIRECTOR Transplantation Research Laboratory

Seeking a Ph.D. in biochemistry, immunology, or molecular biology with interest and experience in transplantation biology to direct a research laboratory within an extremely active liver transplant program. Newly developed facilities, with support from established liver research unit. Need an innovative self-starter to take charge.

Interested candidates should send their résumés to: Charles Miller, M.D. Director, Liver Transplantation The Mount Sinai Medical Center, Box 1104 One Gustave Levy Place New York, NY 10029



# Neurochemist

The Department of Receptor Neurochemistry, CNS Discovery, is seeking a highly motivated Neurochemist to join a team of scientists engaged in basic research and drug discovery programs, directed towards the identification of noval therapeutic approaches to CNS disorders such as Epilepsy, Ischemia and Schizophrenia. The CNS Discovery unit at Novo Nordisk is world renowned for its innovative research programs in the areas of Glutaminergic, GABAergic and Dopaminergic receptors.

The succesful candidate should have experience with neurochemical techniques related to signal transduction pathways and/or neurotransmitter release. Preference will be given to applicants with experience in using tissue slice preparations and/or clonal cell lines. Both the ability to work independently and the willingness to work within a collaborative team oriented environment are essential. Candidates should have a Ph.D. or equivalent in neurochemistry or neuroscience, and relevant postdoctoral experience. For further information please contact Dr. Peter Suzdak on telephone +45 4466 8888 ext. 4760.

If you are motivated to take on these challenging opportunities, please forward your written application marked "Neurochemist 1260" to HCG-Personnel, Building 9QS, Krogshoejvej 31, DK-2880 Bagsvaerd.

Novo Nordisk is one of the world's leading biotechnology companies. It is a major force in insulin manufacture and diabetes treatment and is the world's largest producer of industrial enzymes. The company also manufactures and markets a variety of other pharmaceuticals and bioindustrial products. Headquartered in Denmark, Novo Nordisk employs more than 10,000 people in 43 countries.

### NMR Structural Biologists Memorial Sloan-Kettering Cancer Center Program in Cellular Biochemistry & Biophysics

Tenure track appointments at the Assistant Member level are available in the Cellular Biochemistry & Biophysics Program in the application of multi-dimentional NMR spectroscopy to the analysis of macromolecular structure, dynamics and interactions in solution.

Candidates should have an outstanding record of research achievements and the ability to develop an independent research program. Experience in the application of multidimentional NMR methods to the analysis of macromolecular structure is required. The NMR core facility due for completion in the second quarter of 1993 will house five three channel Varian high resolution NMR spectrometers, including three 600 MHz instruments. The computational resources will include Silicon Graphics and SUN work stations and servers. The institution has allocated equipment and operating budgets to maintain the NMR and computing facilities at state-of-the-art level. Attractive startup packages are available.

Interested applicants should forward their curriculum vitae, bibliography and the names of three references to:

Dr. Dinshaw J. Patel Program in Cellular Biochemistry & Biophysics Memorial Sloan-Kettering Cancer Center Box 557 1275 York Avenue Wew York, NY 10021

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# **Research Associates** DEVELOPMENTAL BIOLOGY

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The aim of the Developmental Biology department at Amgen is to identify, isolate, and characterize genes involved in cell growth and differentiation. Our studies involve a number of in vitro and in vivo systems, including cell culture, transgenic technology, ES cells, and homologous recombination.

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#### SENIOR SCIENTIST

Joining a team involved in Oncology research, this senior scientist position requires a PhD with 7+ years' industrial or academic experience and training in immunology, molecular, cell or tumor biology and outstanding scientific credentials. Specifically, you will be responsible for establishing research programs with an emphasis on cell growth control and differentiation, metastatic processes and signal transduction with the goal of developing novel therapeutics and elucidating mechanisms of action. Dept. 010A.

#### **SCIENTIST**

As part of our Product Development group, you'll develop stable formulations for protein-based drug substances that satisfy drug product criteria for human health care applications. Along with a PhD in (Bio)Chemistry or equivalent, you'll need an in-depth understanding of protein chemistry, characterization, and purification, preferably with some experience in protein formulation, lyophilization processes, and/or drug delivery systems. Exposure to FDA and USDA regulatory agencies is a plus. Dept. 010B.

As a U.S. subsidiary of an international Fortune 500 company, Berlex offers competitive salaries and benefits, which include relocation assistance to our San Francisco Bay Area location. To join our team, please send your resume today, to: BERLEX BIOSCIENCES, HUMAN RESOURCES, DEPT. (indicate dept. of your interest), 15049 SAN PABLO AVENUE, RICHMOND, CA 94804-0099. We are an equal opportunity employer.



The Best Is Yet To Come

#### BIODIVERSITY SUPPORT PROGRAM

The Biodiversity Support Program, a USAID-funded consortium of the World Wildlife Fund, The Nature Conservancy, and World Resources Institute, promotes efforts to conserve biological diversity in developing countries.

#### ASIAN BIODIVERSITY CONSERVATION NETWORK

The Asian Biodiversity Conservation Network (ABCN), a new BSP program under the US-Asia Environmental Partnership, will administer a competitive grants program for collaborative research, conservation, and development projects. ABCN seeks to improve the capacities of local communities, nongovernmental organizations, governmental agencies, scientific research organizations, and private enterprises to conserve biodiversity for subsistence production and commerce in Asia and the Pacific. BSP seeks to fill 3 ABCN positions:

**DIRECTOR** (Dept. 261M) provides the vision, direction, leadership, and management for the ABCN Program. The Director will hire and manage an interdisciplinary staff in Washington office and Asian office. Qualified applicants will possess a PhD and 8 years experience in biological conservation, natural resource management, international development, or private enterprise management.

SENIOR PROGRAM OFFICER (Dept. 262M) assists with the planning, development, and implementation of the ABCN grants program, and provides technical assistance to grantees for the design, implementation and monitoring of their projects. Qualified applicants will possess a Masters or Ph.D. and at least 3 years experience in fields listed in Director's qualifications above.

**PROGRAM ADMINISTRATOR** (Dept. 260M) establishes and maintains the ABCN Program's financial monitoring and accounting systems. Qualified applicants will have a B.A. and 5 years experience in accounting, finance, or business administration or Masters and 1 year experience.

#### ASIA & PACIFIC PROGRAM

BSP's existing Asia & Pacific Program manages a variety of AID-funded projects related to biodiversity conservation. One Position open:

**PROGRAM OFFICER** (Dept. 248A) Assists Program Manager to plan and manage Asia and Pacific activities to develop worldwide conservation monitoring and evaluation program. Qualified applicants should have Masters or Ph.D. in biological or social science and overseas experience, preferably in SE Asia. Project administration experience preferred.

For all positions, experience with AID preferred, but not required. Send cover letter and resume to: WWF, Human Resources, (refer to appropriate Dept. #) By mail: 1250 24th Street, NW, Washington, D.C. 20037. FAX: 202/293-9211. Affirmative Action/Equal Opportunity Employer.

### CHAIR OF MEDICINE UNIVERSITY OF VERMONT COLLEGE OF MEDICINE

The University of Vermont College of Medicine is soliciting applications for the position of Chair of the Department of Medicine. The Chair also serves as Chief of the Medical Service at the Medical Center Hospital of Vermont and President of the full-time faculty practice group. The Department of Medicine has 73 full-time and 70 part-time faculty, and 75 residents and fellows representing all of the subspecialties. The College of Medicine maintains a Clinical Research Center and a comprehensive Cancer Center which have significant liaison with the department. The department has major funded research programs in many disciplines, including the NIH-funded Sims Obesity/Nutrition Research Center. Other major teaching affiliates include the Champlain Valley Physicians Medical Center in Plattsburgh, New York and the Maine Medical Center in Portland. The College of Medicine is committed to excellence in teaching, research and patient care in both primary care and subspecialty internal medicine. Applicants must be board certified in internal medicine with significant prior academic, research and administrative experience. Applications will be accepted until the position is filled. The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Women and people from diverse racial, ethnic and cultural backgrounds are encouraged to apply. Applications and inquiries should be addressed to:

John E. Helzer, M.D. Chair, Department of Medicine Search Committee Chairman, Department of Psychiatry University of Vermont College of Medicine Burlington, Vermont 05405–0068

### RESEARCH OPPORTUNITIES ABROAD FOR U.S. BIOMEDICAL SCIENTISTS

### JOHN E. FOGARTY INTERNATIONAL CENTER

For Advanced Study in the Health Sciences NATIONAL INSTITUTES OF HEALTH

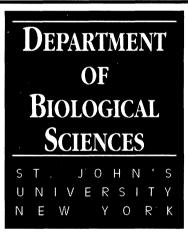
**Senior International Fellowships**: 3 to 12 months for use in any foreign country. Applicants must be more than 5 years post doc with a permanent position in the U.S.

**Foreign-supported Fellowships (Postdocs)**: 1 year in Finland, France, Germany, Ireland, Israel, Japan, Norway, Sweden, Switzerland, or Taiwan.

**Hitchings-Elion Fellowships (Postdocs)**: 2 years in the United Kingdom or Ireland and 1 year in the U.S.

**Fogarty International Research Collaboration Award** (**FIRCA**): 1-3 years; small research grants for equipment, supplies and travel for collaboration between U.S. investigators and scientists in Central and Eastern Europe, former Soviet Union, or Latin America.

For info: International Research & Awards Branch Fogarty International Center National Institutes of Health Bldg. 31, Rm. B2C39 Bethesda, MD 20892 Tel: (301)496-1653 Fax:(301)402-0779



### Assistant/Associate Professor

The Department of Biological Sciences at St. John's University in New York is continuing to expand a sizeable group of energetic, interactive faculty working in the general area of Cell and Molecular Biology. Two tenure-track positions starting Fall 1993 offer competitive salary and start-up funds,

supportive atmosphere, and attractive work environment. Ph.D. & postdoctoral experience, research productivity commensurate with faculty rank, potential to establish an extramurally-funded research research program (Assistant Professor) or record of research funding (Associate Professor), and interest in teaching undergraduates as well Ph.D. and M.S. students are required. Teaching responsibilities include either undergraduate microbiology or developmental biology, and a graduate course in any appropriate area. Send c.v., statement of research interests and names of three references to:

Dr. Tim Carter, Chair, Dept. of Biological Sciences St. John's University Jamaica, NY 11439 St. John's University is an equal opportunity employer - M/P.



# Sr. Scientist/ Principal Scientist (Microbiology)

The R.W. Johnson Pharmaceutical Research Institute (RWJPRI) is a worldwide research and development organization within Johnson & Johnson. RWJPRI performs R&D activities for the Johnson & Johnson pharmaceutical companies ... Cilag, McNeil Pharmaceutical, Ortho Pharmaceutical and Ortho Biotech.

Due to expanding Drug Discovery activities, we have an immediate opportunity in our Microbiology Department for a candidate with a Ph.D. or equivalent in Microbiology, Biochemistry, Molecular Biology, or Cell Biology, and 3-8 years of postdoctoral/industrial experience. The successful candidate will join a multidisciplinary team of researchers seeking new human anti-infectives, in particular novel antibacterials. The position requires close collaboration with chemists to identify and develop agents in support of existing discovery efforts, as well as planning/developing/executing future discovery programs. Supervisory experience required. Experience in macromolecule purification, enzyme kinetics, molecular biology techniques, microbial physiology, and/or tissue culture considered an asset.

We offer a competitive salary and comprehensive benefits including medical/dental insurance, 401(k) plan, tuition reimbursement, and our LIVE FOR LIFE Wellness Program with on-site fitness center. Ours is a smoke-free workplace in a campus-like setting conveniently located midway between New York City and Philadelphia.

No phone calls please. Send resume including salary history to: Gerry Scott-Higgins, HR Dept. 24, R.W. Johnson Pharmaceutical Research Institute, P.O. Box 300, Raritan, NJ 08869-0602

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THE R W KOHNSON PHARMACEUTICAL RESEARCH INSTITUTE a Johnson Johnson company

The Department of Molecular Genetics and Cell Biology and the Department of Medicine of the Division of applications for tenured (**PROFESSOR**, ASSOCIATE PROFESSOR) or tenure-track (ASSISTANT PRO-**PROFESSOR**) or tenure-track (**ASSISTANT PRO-FESSOR**) positions in Virology. Successful applicants are expected to establish a strong program in basic research in Virology and contribute to graduate educa-tion. Appointees will be housed in the Marjorie B. Kovler Viral Oncology Laboratories, a modern facility designed and dedicated to research in Virology. Generous start-up funding will be available to successful applicants. Applicants are invited to submit curriculum vitae, a statement of research inter to submit curriculum vitac, a statement of research interests and the names of three references before January 31, 1993 to: The Virology Search Committee, The University of Chicago, 920 East 58th Street, Chicago, IL 60637. An Affirmative Action/Equal Opportunity Employer.

#### TERRESTRIAL ANIMAL ECOLOGIST

Tenure-track ASSISTANT or ASSOCIATE PRO-FESSOR position open Fall 1993 for evolutionary ecologist studying animal interactions at the population or community level. Research should include a combina-tion of innovative experimental, theoretical and/or modeling approaches. Primary teaching will be one course a eing approaches. Primary teaching will be one course a semester alternating among undergraduate and graduate ecology courses and an introductory-level course. Candi-dates must have Ph.D. with proven record of good teaching and research abilities (demonstrated by publi-cations). Postdoctoral experience preferred. Screening begins 1 February 1993 and will continue until position is fulled Send environment four letters of recommen is filled. Send curriculum vitae, four letters of recommen-dation, representative reprints, summary of teaching experience and description of research interests to: Dr

James N. Thompson, Jr., Chair, Department of Zo-ology, University of Oklahoma, Norman, OK 73019. AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER. OU HAS A POLICY OF BEING RESPONSIVE TO NEEDS OF DUAL-CA-DEFE COUPLES. REER COUPLES.

ASSISTANT/ASSOCIATE PROFESSOR. Applications are invited for a tenure-track position in Anatom-ical Sciences to begin July 1, 1993. Candidates should Ical Sciences to begin July 1, 1993. Candidates should have one or two years of postdoctoral experience and have an ongoing research program in virtually any area, but those complementing our programs in cellular biol-ogy, developmental biology, and neurobiology are of particular interest. Teaching responsibilities include par-ticipation in the graduate program and medical and dental gross anatomy courses. Applicants are requested to submit curriculum vitze a statement of current and to submit curriculum vitae, a statement of current and future research plans, and names of three references by February 1, 1993 to: **Dr. Frank Mendel, Search Com** February 1, 1993 to: Dr. Frank Mendel, Search Com-mittee Chair, Department of Anatomical Sciences, School of Medicine, 317 Farber Hall, State Universi-ty of New York, Buffalo, NY 14214. The State Uni-versity of New York at Buffalo is an Affirmative Action/ Equal Opportunity Employer.

The School of Medicine of the Health Sciences Center of the University of Missouri announces a search for the CHAIR OF THE DEPARTMENT OF MOLECU-LAR MICROBIOLOGY & IMMUNOLOGY. Re-sponsibilities include recruitment and retention of faculty, education of medical students, training of graduate

students and fellows, and strengthening of research. The position is to be filled by July 1, 1993 and requires an individual of high energy and creativity who has a an individual of high chefy and creativity who has a productive record of academic accomplishments in mod-ern molecular basic science. Applications from minorities and females are particularly welcomed. Direct inquiries to: Herbert S. Goldberg, Ph.D., Associate Dean for Re-search & Academic Affairs, University of Missouri School of Medicine, MA204 Medical Sciences Building, Columbia, MO 65212.

**BIOLOGY INSTRUCTOR**. Half-time, tenure-track BIOLOGY INSTRUCTOR. Half-time, tenure-track position, beginning fall quarter 1993. Ph.D. in genetics or developmental biology preferred. Teaching duties include introductory biology and upper division courses in genet-ics, developmental biology and evolution. Deadline for application is February 1, 1993, or until filled. Send curriculum vitae, transcripts and three letters of recom-mendation to: Karen Antell, Genetics Search, Eastern Oregon State College, 1410 L Avenue, La Grande, OR 97850–2899. Telephone: (503) 962-3610. Affirmative Action/Eaul Onportunity Employer Action/Equal Opportunity Employer.

**POSITIONS OPEN** 

BIOMEDICAL SCIENCES

DEPARTMENT OF PHYSIOLOGY

ment of Physiology. We seek someone holding a Ph.D. and/or M.D. who will develop an active, independent

research program that uses molecular, cellular or integra-tive methods to investigate problems in mammalian biology. The candidate will be expected to take an active

role in a new Biomedical Sciences Graduate Program and

to participate in teaching mammalian physiology to medical students. Applicants should include curriculum

vitae, statements of teaching experience and research interests, reprints of up to three selected publications, and the names of three individuals who have been asked

to submit reference letters. Women and minorities are encouraged to apply. Applications should be sent to: Chair, Search Committee, Department of Physiology, Box 0444, University of California, San Francisco, CA 94143–0444. UC San Francisco is an Equal Oppor-

DIRECTOR, Arizona State Environmental Technol-

DIRECTOR, Arizona State Environmental Technol-ogy Training Center, Pima Community College, East Campus. Salary: \$39,761. Review of applications: Jan-uary 22, 1993. For information on position require-ments and application process please call or write to: Employment, Pima Community College, P.O. Box 3010, Tucson, AZ 85702–3010; Telephone: (602) 884-6624. Pima Community College is committed to mul-ticultural diversity and is an Equal Opportunity/Affirmative Action Employer. Women. minorities and other protected

Action Employer. Women, minorities and other protected classes are encouraged to apply.

DIRECTOR Graduate Program in Marine Biology

Applications are invited for the Director of the Grad-

uate Program in Marine Biology at the University of

Charleston, South Carolina. The program offers a Master

of Science in Marine Biology. The range of expertise of the graduate faculty is extensive and includes individuals

not only at the Univesity of Charleston, but also local institutions including The Citadel, the Charleston Lab-

(MMFS), the Marine Resources Research Institute (MRRI) of the South Carolina Wildlife and Marine

Resources Division, and the Medical University of South Carolina (MUSC). The program is housed at the Grice

Marine Biological Laboratory at Fort Johnson on Charleston Harbor. The location of other institutions at Fort Johnson (NMFS, MRRI, MUSC) enhances the

opportunities for faculty and student research. The elev-

en-month appointment carries faculty status at the Associate Professor or Professor level in the Department of Biology at the University/College of Charleston. Prefer-ence will be given to candidates who have (1) earned a

Ph.D. in some area of Marine Biology, (2) demonstrated scientific achievement as evidenced by publications and a record of externally funded research, (3) experience in teaching in graduate and undergraduate programs, and

(4) experience in administration, particularly in a marine laboratory/university setting. Applicants should submit by January 15, 1993 curriculum vitae, recent publica-

tions, and the names, addresses, and telephone numbers of three references to: L. E. Burnett, Chair, Depart-

ment of Biology, University of Charleston, Charleston, SC 29424–0001. The University of Charleston is an Equal Opportunity/Affirmative Action Employer.

PATHOPHYSIOLOGY. Tenure-track FACULTY

POSITION. Teach undergraduate and graduate courses

in pathophysiology and pathology for students in the allied health sciences. Conduct research in area of inter-

est. Doctorate required in physiology, pathology, or related discipline with expertise in pathophysiology. Po-sition currently available. Starting date negotiable. Send

letter of application, curriculum vitae, and a list of three references to: Dr. Owen Elder, School of Health Related Professions, University of Mississippi Medi-cal Center, 2400 North State Street, Jackson, MS

tunity/Affirmative Action Employer.

The University of California (UC), San Francisco seks applications for a tenure-track position of ASSIST-ANT or ASSOCIATE PROFESSOR in the Depart-

#### **POSITIONS OPEN**

**DIRECTOR**, Bone Marrow Transplantation Pro-gram. Tulane University School of Medicine and Tulane Cancer Center are seeking applicants at the Associate Professor/Professor level to lead the research and clinical program in Bone Marrow Transplantation. Candidates are expected to have an established, funded research program in clinical and/or experimental transplantation biology and be capable of developing and managing the research and clinical aspects of the program with the Sections of Pediatric and Medical Hematology/Oncology. Candidates must be Board Certified in either Pediatrics or Medicine and have at least three years of experience in a bone marrow transplant unit accredited by the National Marrow Donor Program. An attractive package of salary and development resources is available. Research space in the new Cancer Center will be ready for occupancy in June of 1993. Interested applicants should send curriculum vitae and names of three refer-ences to: James J. Corrigan, Jr., M.D., Vice Dean, Tulane University Medical Center, 1430 Tulane Av-enue, New Orleans, LA 70112–2699. Applications will be accepted until position filled. Affirmative Action/ Equal Opportunity Employer.

MOLECULAR SYSTEMATIST. Louisiana State University (LSU) Museum of Natural Science anticipates a tenure-track opening for a **CURATOR OF GENET-IC RESOURCES** (Assistant or Associate Curator lev-el). Applicants should have a Ph.D. in the biological sciences plus training and research experience in molecular systematics of vertebrates (birds preferred). Experience in the management of frozen tissue collections is also preferred. Duties include research, curation of the LSU Collection of Genetic Resources Collection of Genetic Resources, teaching one zoology course per year, and graduate training. The fiscal-year appointment is expected to begin 1 July 1993. Applicants should submit curriculum vitae, statement of research and curatorial interests, and names of at least three references to: Dr. D. A. Good, Museum of Natural Science, LSU, Baton Rouge, LA 70803. Review of applications will begin 15 February 1993 and will continue until suitable candidate is found. *An Equal* Opportunity/Affirmative Action Employer.

Columbia-Presbyterian Medical Center-New York City. RESEARCH DIRECTOR. The Department of Anesthesiology is developing a new position for an M.D., M.D./Ph.D. or Ph.D. to direct our research effort. We are developing a significant financial base for research, with the goal of establishing an endowed chair, to enable a qualified scientist to build an outstanding research program. We seek an established investigator with extensive research experience in anesthesiology or volution (and the second secon plished in writing grant applications and have been awarded outside funding for research. Please submit curriculum vitae, current grant support, and a cover letter outlining scientific research interests and career goals to: Edward D. Miller, Jr., M.D., E.M. Papper Professor and Chairman, Department of Anesthesiology, Col-lege of Physicians and Surgeons, Columbia Universi-ty, 630 West 168th Street, New York, NY 10032. Columbia University is an Affirmative Action/Equal Opportunity Employer.

#### YALE SCHOOL OF MEDICINE FACULTY POSITION

The Department of Therapeutic Radiology at the Yale University School of Medicine is seeking highly qualified candidates for a position in its **RADIOBIOLOGY SECTION**. Candidates should have research interests that complement existing research in the Section on DNA repair, recombination, mutagenesis, and the roles of oncogenes and tumor suppressor genes in human cancer. A strong record of research accomplishment and support is expected. The appointment will be at the level appropriate for the successful candidate, from Assistant Professor to Professor. Yale University is committed to increasing representation of women and members of minority increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates. Candidates should send curriculum vitae, bibliography, statement of research interests and the names of three references to: Dr. William C. Sum-mers, Radiobiology Section, Department of Thera-peutic Radiology, Yale Medical School, 333 Cedar Street, New Haven, CT 06510.



# **GLAXO INSTITUTE FOR MOLECULAR BIOLOGY**

Research at the Glaxo Institute in Geneva is directed towards the discovery of novel molecular mechanisms that can be used as drug targets to treat serious diseases. In particular, research is focused on the CNS, allergies and inflammatory conditions. We have an outstanding opportunity for a

# YEAST MOLECULAR BIOLOGIST to study ION-CHANNEL RECEPTORS

Applications are welcomed for a post-doctoral position to study mammalian ion-channel receptors using heterologous expression in yeast as the experimental system.

The successful applicant will work with molecular microbiologists, biochemists and electrophysiologists investigating receptors and signal transduction. A background with experience in the biochemistry or electrophysiology of ion-channels, in conjunction with yeast expression and mutagenesis, would be ideal. Informal enquiries should be directed to Dr. John Reid (JDR5341@ggr.co.uk) or (++41 22 706 9602).

The Institute provides a dynamic international research environment and actively encourages collaborative projects with academic groups as well as the publication and presentation of results at scientific meetings.

We offer an excellent compensation and benefits package and significant opportunities for career development. Geneva, situated in a very attractive part of Europe, has many advantages as a place to live. The Institute for Molecular Biology is part of the Glaxo group, one of the world's most successful healthcare companies which has an outstanding reputation for the quality of both its research and products.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three referees to : Rita Gloor, Personnel Manager, Glaxo Institute for Molecular Biology, 14 chemin des Aulx, 1228 Plan-les-Ouates, Geneva, Switzerland.

## Pharmacokinetics/ Bioanalytical Chemistry

Pharmakon Research International. a subsidiary of DNX Corporation, is a leader in contract research in immunology. pharmacology. toxicology and pharmacokinetics. We are seeking a Pharmacokineticist for our Drug Metabolism department with a Ph.D. in Pharmaceutics or related discipline, experience in pharmacokinetics and drug metabolism. and excellent computer and bioanalytical skills. We are also seeking a Bioanalytical Chemist with a BS or MS degree in Analytical Chemistry or related discipline with experience in HPLC of analytes in biomatrices.

Pharmakon offers stimulating technical challenges and a beautiful rural Northeastern Pennsylvania location. Qualified candidates should forward resumes with current salary to: **D-22, P.O. Box 2068, Philadelphia, PA 19103** 



# Scientific Project Manager (Ph.D)

Alpha Therapeutic Corporation is a leader in the manufacture and worldwide distribution of plasma derivatives and pharmaceutical products. Our reputation within the industry makes us a company you can count on for professional challenge, recognition and rewards. We have a career opportunity for a Scientific Project Manager.

The position involves managing the Corporation's ongoing commercial stability program and will involve interacting with government regulatory agencies. Responsibility for identifying product samples for testing, tracking and analysis of test data and compilation and interpretation of test data for presentation to the FDA are involved.

The position requires a Ph.D. or equivalent in biochemistry, chemistry or other life sciences along with 3-5 years experience in a clinical or biochemical research laboratory. Selected candidate must possess excellent verbal and written communication skills, have a good background in statistics, possess demonstrated managerial abilities and be computer literate.

Alpha Therapeutic offers competitive salaries, excellent benefits. and advancement opportunities. For immediate consideration, please submit your resume and salary requirements to: Alpha Therapeutic Corporation, Attn: Nan Maaskamp, Manager, Human Resources, Mail Stop NM-825, 5555 Valley Blvd., Los Angeles, CA 90032. AA/EOE.





#### **FACULTY POSITIONS**

The Department of Biological Sciences has recently occupied a new seven-story Biological Sciences Building and undertaken a major development effort which includes the recruitment of a significant number of new faculty over the next four years.

Applications and nominations are invited for tenure-line faculty positions at any rank from individuals with research interests in the following four areas (areas of particular interest are noted):

#### MEMBRANE BIOLOGY

(signal transduction or membrane excitability)

EVOLUTIONARY ECOLOGY (adaptive nature of phenotypes or genetic systems)

> MOLECULAR CELL BIOLOGY (signal transduction pathways)

#### MOLECULAR MICROBIOLOGY

(prokaryotic/lower eukaryotic gene expression and regulation)

Applicants should have a doctoral degree and suitable postdoctoral experience. Successful candidates will be expected to establish extramurally-funded research programs and to teach at the undergraduate and graduate levels. *Women and minority candidates are encouraged to apply*. Review of applicants will begin on **4 January 1993** 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, Chair Department of Biological Sciences Wayne State University Detroit, Michigan 48202

Wayne State University is an Equal Opportunity/Affirmative Action Employer

#### VACANCY ANNOUNCEMENT

#### POST DOCTORAL SCIENTIST—PD/92/2 LIVESTOCK MOLECULAR GENETICS

The International Laboratory for Research on Animal Diseases, based in Nairobi, Kenya, is a member of the Consultative Group on International Agricultural Research with the mandate of developing improved methods for control of livestock diseases. Current research focuses on immunological and genetic means of controlling African trypanosomiasis and immunological control of the theilerial disease, East Coast fever. Livestock disease research is supported by a programme of socio-economic research and both programmes are integrated with a programme of collaborative research, information dissemination and training.

A position is available for a molecular geneticist to join a group conducting research into the genetic control in cattle of resistance to infection with trypanosomes (trypanotolerance). The successful candidate will have experience of the latest molecular biological technologies and an understanding of their applications in the development and mapping of genome markers for use in localisation of genes of interest. Experience of the use of genetic markers for population definition would be an advantage. The group interacts with a multidisciplinary team providing expertise in immunology, pathology, parasitology and embryo technologies and is able to take advantage of advanced animal breeding facilities with a large population of cattle segregating the trypanotolerance trait.

Applicants should have an appropriate primary degree in the natural sciences and should have obtained a Ph.D. degree awarded for molecular genetics studies.

The salary and benefits package are comparable to those offered by similar international organisations, and include allowances for first arrival, housing, education, commutation and home leave as well as provisions for pension and insurances.

Applications with CV and names and addresses of three referees should be sent to: The Chief Personnel Officer, ILRAD, P.O. Box 30709, NAIROBI (Telex 22040; Fax (254-2) 631499; Email BT TYMNET CGI017) not later than January 31, 1993, or until a suitable candidate has been identified.

ILRAD is an equal opportunity employer.

#### Grants for Research in Japan

The National Science Foundation (NSF) and the Japan Foundation's Center for Global Partnership (CGP) announce a new program to encourage U.S. scientists and engineers to participate in research in Japan. U.S. science and engineering researchers at the level of postdoctorate\* and above in industry, government, or university, may apply for support to conduct research at Japanese corporate, government, or university laboratories.

Depending upon the length of stay, support will consists of some or all of the following items: salary, travel, relocation expenses, housing, and Japanese language study.

The U.S. researcher must take the initiative to correspond with potential Japanese hosts and to identify the one who will be the most appropriate. To aid in the search for an appropriate host, NSF will furnish upon request directories of Japanese institutions willing to receive American researchers.

Applications will follow NSF's standard proposal format as outlined in the "Grants for Research and Education in Science and Engineering: An Application Guide," NSF publication 92–89. Project Descriptions are limited to five pages for research stays of three to six months and 10 pages for research stays for more than six months. Beginning December 1992, proposals will be accepted for fellowships to begin after June 1, 1993. The target date for proposal submission will be February 15, 1993.

For further information as well as copies of the materials mentioned above contact:

Japan Program Division of International Programs National Science Foundation 1800 G Street, N.W. Washington, D.C. 20550 phone: (202) 653-5862 c-mail:nsfjinfo@nsf.gov (Internet) or nsfjinfo@nsf (BitNet) #92-137 TDY 202-357-7492 [\* or equivalent professional research experience beyond an M.S. degree in the natural sciences or engineering]

### Chairperson, Department of Pathology University of Massachusetts Medical Center

UMMC invites nominations and applications for the position of Chair of the Department of Pathology. We seek an outstanding, funded investigator who wishes to direct an academic Department of Pathology in a dynamic and expanding institution. The successful candidate must assume important responsibilities for administration and teaching.

Interested candidates should submit a letter of interest and their Curriculum Vitae to:

Dr. Aldo A. Rossini Director, Division of Diabetes Biotech II 373 Plantation Street Suite 218 Worcester, MA 01605

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



## The Global Environment: Invitation for Research Proposals

The Research Institute of Innovative Technology for the Earth (RITE) was established in July 1990 to tackle global environmental problems.

RITE is a research institution and was created to investigate environmentally friendly technologies to cope with these issues under the directorship of Prof. Kondo, the president of the Science Council of Japan.

RITE is inviting basic research proposals concerned with environmental problems. Research works which are deemed to contribute significantly to the resolution of global environmental problems will be supported by RITE in the form of commissions.

#### Invited research category:

Basic research aimed at the development of innovative technologies which will contribute to the solution of global environmental problems

#### Invited research themes:

- [A] Research concerning greenhouse gases, such as carbon dioxide and methane gas which are considered among the main causes of global warming) on the following themes:
  - 1) Efficient separation, recovery, disposal, re-use, and so on of greenhouse gases
  - Innovative process technologies which limit greenhouse gas generation
     Research concerning enhancement of CO<sub>2</sub> sinks (ex. ocean sinks, underground storage and reforestation through biotechnology.)
- [B] Research of other technologies concerning environmental problems on the following themes:
  - Prevention of the generating and widespread release of chemical substances seriously detrimental to the environment (apart from the greenhouse gases mentioned in [A] above.)
  - 2) Substitutes for the chemical substances mentioned above.
  - 3) Recycling and effective utilization of materials.

#### • Number of Proposals to Be Accepted:

Acceptance of about 10 proposals is planned.

#### Allowance for commissioned research:

Up to 10 million yen will be provided for each accepted proposal. The average allowance in the previous year was 6.6 million yen. (The allowances ranged from 5.4 million to 7.5 million yen).

#### Closing date for the submission of proposals:

- Proposals must reach RITE no later than the last day of February, 1993.
- Period for commissioned research:

Accepted proposals will be single-year projects to be conducted during the period from around June or July, 1993 to March, 1994. However, when continuation is deemed necessary, RITE may commission further research. • Qualification:

Individuals or groups engaged in research activities, regardless of nationality. Research implementation sites will not be a determinant in selection.

#### Application:

Applicants must write to the Secretariat at RITE (to the address below) for literature detailing documents to be submitted and designated formats thereof. All accepted proposals are requested to be presented in ENGLISH or JAPANESE.

#### Secretariat

Mr. Ishizu or Mr. Takashima

Research Proposals Reception Section

Research Planning Department, Research Institute of Innovative Technology for the Earth, Shin-Kyoto Center Bldg. 4F, Karasuma nishi-iru, Shiokouji-dori, Shimogyō-ku, Kyoto 600 Japan TEL: 81-75-361-3611

#### FAX: 81-75-361-5607

This program is carried out on commission by the New Energy and Industrial Technology Development Organization (NEDO).



#### UCLA NEUROSCIENCE NEUROPSYCHIATRIC INSTITUTE DIRECTOR, MENTAL RETARDATION RESEARCH CENTER

Excellent opportunity for an outstanding neuroscientist to facilitate a large interdisciplinary research program with developmental neurobiological orientation and direct relationships with a department of psychiatry. Strong basic science components should relate to clinical neuroscience in mental retardation and child and adult psychiatry as well as neurology. The Center has a history of State and Federal support and a number of state supported faculty positions. Director must be able to work effectively with established independent investigators as well as to recruit talented new investigators. The position permits the director time for a full personal scientific program. It is anticipated that the director will hold a medical school appointment with possible joint appointments. Please send C.V., list of publications, list of past trainees, references and a brief statement of experience, scientific goals, funding and personal research interests to:

John C. Liebeskind, Ph.D. Chair, MRRC Search Department of Psychology-Franz Hall Univesity of California, Los Angeles Los Angeles, CA 90024 UCLA is an Affirmative Action/Equal Opportunity Employer.

# Histology (Hard Tissue) Laboratory Supervisor

Supervise laboratory staff
Coordinate clinical/pre-clinical specimen processing

At Howmedica, a global leader in the manufacture of orthopaedic implant medical devices and a division of Pfizer Hospital Products Group Inc., we are committed to groundbreaking research and development. Recent expansion has created an opportunity for an experienced Histology Laboratory Supervisor at our Worldwide Research Center in Rutherford, New Jersey.

To qualify, you should possess a bachelor's degree (or equivalent experience) in a scientific discipline, with at least five years' general histology experience including at least three years in biomaterial processing with material/tissue/implant interactions. At least one year of successful supervisory experience is required; experience and familiarity with the EXAKT system is preferred, along with the ability to qualitatively interpret undecalcified sections.

In return, Howmedica offers a new, 30,000 square foot, state-of-the-art research facility located less than 10 miles from Manhattan; an excellent salary; comprehensive benefits; and the support of a well-respected, Fortune 100 industry leader. For confidential consideration, please send your resume, indicating salary history and requirements, to: **Mr. Donald Stewart, Personnel Manager, Howmedica, Inc., 359 Veterans Boulevard, Rutherford, New Jersey 07070.** We are an equal opportunity employer.



#### THE UNIVERSITY OF CALIFORNIA AT SAN DIEGO DEPARTMENT OF BIOLOGY FACULTY POSITION IN MAMMALIAN MOLECULAR BIOLOGY

The Department of Biology, University of California, San Diego invites applications for a tenure-track faculty position at the assistant professor level in the general area of Mammalian Molecular Biology. The position is available effective Fall, 1993, subject to availability of funding. Possible areas of interest include molecular controls of mammalian development, targeted mutations in the mouse genome, signal transduction, hematopoiesis, DNA replication, regulatory mechanisms involved in post-transcriptional processing, transport, or translation of mRNA, and the function of higher order chromosomal structures. Exceptional candidates in all areas of mammalian molecular biology will be considered. Salary will be commensurate with level of appointment and based on UC published salary scale. The successful candidate is expected to develop a vigorous research program and to participate in the department's undergraduate and graduate teaching program. A Ph.D. and productive postdoctoral training are required. Please submit curriculum vitae, a statement of professional goals and research interests, and the names of three references by February 15, 1993, to:

#### Mammalian Search Committee c/o Ms. Carrie Garnett Department of Biology 0346 University of California, San Diego 9500 Gilman Drive La Jolla, CA 92093-0346

The University of California, San Diego is an equal opportunity/affirmative action employer. We strongly encourage women and minorities to apply.

#### FACULTY POSITIONS IN CELLULAR AND MOLECULAR PHYSIOLOGY

The Department of Cellular and Molecular Physiology of The Pennsylvania State University College of Medicine invites applications for tenure-track faculty positions at the Assistant/Associate Professor rank to begin in Summer of 1993. The Department pres-ently has fifteen full-time, well-funded faculty who are working in the general area of cellular and molecular physiology. We are seek-ing candidates with substantial research experience at the postdoctoral level, or above, in applying molecular biology and recombinant DNA techniques to one or more of the following areas: metabolic regulation, mechanisms of hormone action, membrane receptors, signal transduction mechanisms, and regulation of expression of eukaryotic genes. Special attention will be given candidates who are using cellular models to study the pathogenesis of diabetic retinopathy as well as candidates who are investigating the molecular basis of responses to cell damage by either therapeutic agents or pathophysiological stimuli. Significant research accom-plishment and ability to obtain independent funding are essential. Excellent opportunities exist for research collaboration, teaching in a medical school curriculum, and participation in one or more graduate programs.

Applicants should submit, prior to February 1, 1993, curriculum vitae, reprints, statement of current and planned research interests, and letters from at least three references to: Dr. Leonard S. Jefferson, Chairman, Department of Cellular and Molecular Physiology, College of Medicine, The Pennsylvania State University, P.O. Box 850, Hershey, PA 17033. An Affirmative Action/ Equal Opportunity Employer. Women and minorities encouraged to apply.

#### **POSITIONS OPEN**

#### CELL BIOLOGIST ELECTRON MICROSCOPY University of California, San Diego

The Department of Biology at the University of California, San Diego, invites applications for a FAC-ULTY POSITION for an individual whose research involves the innovative applications of electron microscopy and related techniques to fundamental problems of cell biology. The position is available effective Fall 1993, subject to availability of funding. Preference will be given to an individual who will also oversee the Departmental Laboratory of Electron Microscopy.

Salary will be commensurate with the level of appointment and based on the University of California salary scale. The successful candidate is expected to pursue a vigorous research program in areas of ultrastructural biology and to participate in undergraduate and graduate teaching programs.

Please submit curriculum vitae, a statement of prior experience, professional goals, and research interests, and names of three references by January 31, 1993, to: Cell/EM Search Committee, c/o Ms. Mary Sue Webb, Department of Biology 0346, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0346.

The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately (January 1993) to study transport, processing and presentation of melanoma intracellular antigens using cell and molecular biological approaches. Experience in molecular biology and biochemistry methodologies is required. Please send or fax curriculum vitae and names and addresses of three references to: Dr. Alan N. Houghton, M.D., Immunology Program, Box 465, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. FAX: (212) 794-4352.

POSTDOCTORAL POSITION available immediately to study molecular genetics and biochemistry of membrane lipid and macromolecular synthesis in *Escherichia coli*. Experience in one or more of the following is expected: Recombinant DNA techniques, protein isolation and characterization, lipid biochemistry. Interested individuals should send curriculum vitae and names of three references to: Dr. Timothy J. Larson, Department of Biochemistry, Virginia Tech, Blacksburg, VA 24061–0308. *Equal Opportunity/ Affirmative Action Employer*.

**POSTDOCTORAL POSITION** available to study the role of transcription factors in the development of the T cell lineage (e.g., *Science* **258**:808, 1992). Experience in at least two of the following areas is required: recombinant DNA technology, transgenic mice, gene expression in eukaryotic systems or protein chemistry. Send curriculum vitae and names and addresses of three referces to: Dr. K. Georgopoulos, CBRC, Massachusetts General Hospital, Building 149, 13th Street, Charlestown, MA 02129.

**POSTDOCTORAL POSITION** available immediately to study the interaction of T cell receptors with peptide-MHC complexes using murine models of autoimmune disease (Ward, *J. Mol. Biol.* 224:885, 1992). Experience in molecular biology and/or immunology is desirable, but applicants from other areas will be considered. Please send curriculum vitae and names of three referees to: Dr. E. Sally Ward, Cancer Immunobiology Center, Department of Microbiology, U.T. Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235–8576.

UT Southwestern is an Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available for <sup>13</sup>C NMR studies of lipid-protein interactions and <sup>1</sup>H 2-D NMR studies of the solution structure of peptides. Experience in 2-D NMR spectroscopy and a recent Ph.D. in biophysics or a related field are required. Send curriculum vitae and three letters of recommendation to: James A. Hamilton, Department of Biophysics, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118–2394. Boston University is an Affirmative Action/Equal Opportunity Employer.

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#### **POSITIONS OPEN**

**POSTDOCTORAL POSITION** available immediately to join ongoing projects related to inborn errors of intracellular metabolism of cobalamin (*cbl* mutations). Experience in a variety of biochemistry/cell biology techniques is preferred. Please send curriculum vitae, summary of research experience and name of three references to: Dr. Ewa H. Pezacka, Department of Cell Biology, L3-137, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195–5139. Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION** available immediately to study the mechanisms of iron uptake in Haemophilus influenzae by identifying, cloning, and characterizing genes involved in iron acquisition and regulation. Experience in molecular biology would be preferred but not essential. Send curriculum vitae and the names of 3 references to: **Terrence L. Stull, M.D., Department of Pediatrics, Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, PA 19129.** 

POSTDOCTORAL POSITION available immediately to study the biochemistry of integrin-mediated signalling events in cellular adhesion, spreading, and migration. Send curriculum vitae and three references to: Dr. David A. Cheresh, Department of Immunology. The Scripps Research Institute, 10666 North Torrey Pines Road, IMM13, La Jolla, CA 92037. FAX: (619) 554-6705. Equal Opportunity Employer.

#### POSTDOCTORAL POSITION CELLULAR AND MOLECULAR BIOLOGY University of California, San Diego

Position available to participate in research on regulation of membrane trafficking. Candidates must have a Ph.D. or M.D. degree with training and experience in cell/molecular biology or biochemistry/pharmacology. Investigative background in signal transduction (GTP binding proteins, protein kinases) preferred. Expertise in protein purification, immunoprecipitation, Western blotting, tissue culture, cell fractionation, immunofluorescence, affinity chromatography, and molecular biology highly desirable. Salary starts at \$26,000 per year and is commensurate with prior experience. Send curriculum vitae and the names and addresses of 3 references to:

Dr. Marilyn G. Farquhar Division of Cellular and Molecular Medicine University of California, San Diego La Jolla, CA 92093–0651 Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION** available in Hematology/Oncology Research Laboratory, New England Deaconess Hospital, Harvard Medical School for candidates to work on generation of novel immunotherapies, studies of candidate vaccines and HIV protease inhibitors, and other anti-HIV agents. Applicants must have an M.D. or Ph.D. in molecular biology and 2 to 3 years of postdoctoral training in HIV biology. Experience in DNA cloning, *in vitro* mutagenesis, PCR, protein expression and purification, immunochemistry, and HIV propagation and asay methods is required. Experience with cellular cytotoxicity assays, using HIV infected cells as targets, is preferred. Salary: \$25,000 to 35,000 per year according to experience. Send résumé and three reference letters to: Dr. Randal A. Byrn, Ph.D., Hematology/ Oncology Research, New England Deaconess Hospital, 185 Pilgrim Road, Boston, MA 02215.

**POSTDOCTORAL POSITION** to Study Molecular Biology of p53.

A position is available to study molecular mechanism of the tumor suppressor p53. Applications are invited from persons with a keen interest in understanding the molecular biology of the tumor suppressor p53 and associated proteins. Current focus in the laboratory is understanding the involvement of p53 in transcription and how transforming mutants of p53 may aid in cancerous development. This challenging opportunity exists in a small but extremely well equipped and intense laboratory. Persons with expertise in recombinant DNA technology and protein purification are especially encouraged to apply with complete curriculum vitae and names of three references to: Sumitra Deb, Ph.D., Department of Microbiology, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284–7758. The University of Texas Health Science Center at San Antonio is an Equal Opportunity/Affirmative Action Employer.

# Request for Consultants to Serve as NIH Peer Reviewers

The National Institutes of Health (NIH) is in the process of expanding its consultant file of peer reviewers. These reviewers are selected from a national pool of scientists who are engaged in basic or applied research. Data from qualified respondents will be entered into a computerized database. This unique database is used as one source from which candidates for membership on NIH committees and for other advisory activities are drawn. Consultant scientists act in an advisory capacity to assist NIH in the evaluation of research projects.

All qualified scientists are requested to participate.

Qualified women and minority scientists are encouraged to apply.

All scientists who are interested in participating should respond by requesting a Candidate Information Form. Since the expanded file is based solely on positive responses, your response is needed even if you are already a consultant or are a member of a Reviewer's Reserve. This file is independent of other consultant files. Your request should be sent to:

# NIH Consultant File 7101 Wisconsin Avenue, Suite 1125, Box 92 Bethesda, MD 20814

Fax response to (301) 718-8439 or mail today!

#### MINORITY MEDICAL FACULTY DEVELOPMENT RESEARCH FELLOWSHIPS

The Minority Medical Faculty Development Program, sponsored by the Robert Wood Johnson Foundation, has up to twelve new positions available beginning in 1994. The program offers postdoctoral research fellowships to physicians from under-represented minority groups as defined by the Associa-tion of American Medical Colleges. These individuals must have demonstrated superior academic and clinical skills and have committed themselves to careers in academic nedicine with special interest in either BIO-MEDICAL RESEARCH, CLINICAL INVES-TIGATION OR HEALTH SERVICES RE-SEARCH. The fellowship supports four consecutive years of research. Each Fellow selected will receive an annual stipend of up to \$50,000.00 with 5% increases per year and a fixed \$25,000.00 annual grant toward support of research activities.

In addition to the above stated eligibility requirements, applicants must be U.S. citizens and must have completed their formal clinical training by the projected time of entry into the program.

Applications for appointment in 1994 must be submitted by April 30, 1993. Interviews with selected applicants will be carried out in July 1993, and successful candidates will be notified in November 1993.

For further information and application materials, contact:

Harold Amos, Ph.D., Program Director or Charlotte Litt, Ph.D., Deputy Director Minority Medical Faculty Development Program Harvard Medical School P.O. Box 445 Brookline Village, MA 02147 Telephone: (617) 732-1974



#### ASSISTANT PROFESSOR OF BIOLOGY

The Department of Biology of Niagara University invites applications for two tenure track positions available beginning August 1993. Postdoctoral experience is desirable for both positions.

(1) Developmental Biologist Ph.D. and ability to teach advanced courses in embryologydevelopmental biology, molecular genetics, and biochemistry.

(2) Microbiologist Ph.D. in Microbiology with ability to teach courses in microbiology, bacteriology, environmental microbiology and immunology.

The Department of Biology is committed to excellence in undergraduate education, and teaching at the introductory and advanced levels is expected. In addition, the candidate is expected to develop an individual research program involving undergraduate students. Startup funds and departmental resources are available for the successful candidate. Opportunities are also available and are encouraged for collaborations with local research and industry groups. Salary is competitive, and will be commensurate with the successful candidate's experience. Application should demonstrate exceptional abilities in teaching and research and should include curriculum vitae, three (3) letters of reference, and a summary of current and future research plans. Applications must be received by December 31, 1992. Send to:

Dr. Carol R. Sweeney, Chairperson Department of Biology Niagara University, Box 2032 Niagara University, NY 14109



The Department of Physiology of the Temple University School of Medicine, in conjunction with the Temple University Sol Sherry Thrombosis Research Center is seeking applicants for a tenuretrack position at the ASSISTANT/ASSOCIATE PROFES-SOR LEVEL. Applicants should have an M.D. or a Ph.D. degree and a proven record of accomplishment in the area of endothelial physiology and/or vascular wall biology. Individuals with backgrounds in cellular and molecular biology, biochemistry, or pharmacology are encouraged to apply. The successful applicant is expected to develop an independent research program and to involve himself/herself in the teaching responsibilities of the Department of Physiology. Send curriculum vitae, a description of research interests, and three letters of reference to:

DR. JAMES P. RYAN, DEPART-MENT OF PHYSIOLOGY, TEMPLE UNIVERSITY SCHOOL OF MEDICINE, 3401 N. BROAD ST., PHILADELPHIA, PA 19140.

Temple University is an Equal Opportunity Employer. Applications are encouraged from women and members of minority groups.



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#### **RETINAL NEUROBIOLOGY**

A POSTDOCTORAL POSITION is currently available for a recent Ph.D. or M.D. with an interest in retinal neurobiology. Potential projects include studies on the regulation of neurotransmitter release, neurotransmitter receptors and signal transduction, second messenger cascades in photoreceptor cells and their roles in gene expression and melatonin biosynthesis, circadian rhythms in retina, and regulation of postnatal ocular growth and myopia by retinal neurotransmitters and growth factors. Interested individuals should send curriculum vitae, a short statement of research interests, and names of 3 references to: P. M. Iuvone, Department of Pharmacology, Emory University School of Medi-cine, Atlanta, GA 30322–3090, U.S.A. Emory Univer-sity is an Affirmative Action/Equal Opportunity Employer.

#### POSTDOCTORAL POSITION

Available February 1993 for Ph.D., M.D. specializing in neuropharmacology-neurochemistry. Experience de-sired in cerebral dialysis or push-pull perfusion with background in chemical separation and analysis of sero-tonin and other neurotransmitters. Send curriculum vitae and three letters of recommendation by 1 January 1993 to: Dr. R. D. Myers, Department of Pharmacology, East Carolina University, Greenville, NC 27858. Fed-eral law requires proper documentation of identity and employability at the time of employment. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available to study molecular biology of human disease. Research involves study and isolation of genes for tuberous sclerosis using genetic linkage strategies and physical mapping techbut not essential. Salary commensurate with experience preferred but not essential. Salary commensurate with experience. Send curriculum vitae, statement of research interests, and three references to: Dr. Margaret Pericak-Vance, Box 2900, Duke University Medical Center, Durham, NC 27710. Equal Opportunity/Affirmative Action Employer.

A POSTDOCTORAL POSITION is available immediately to develop a mouse model for genetic deficienmediately to develop a mouse model for genetic deficien-cy of cystathionine  $\beta$ -synthase using recombinant tech-niques in embryonic stem cells. Requirements: U.S. residency; Ph.D. or similar professional degree; hands-on experience in cellular and molecular biology. Please send or **FAX:** (303-270-8080) a copy of your curricu-lum vitae and a cover letter together with a list of names, addresses and talebage numbers for threat references to addresses, and telephone numbers for three references to: Jan P. Kraus, Ph.D., Pediatrics, Box C233, Universi-ty of Colorado Health Sciences Center, 4200 E. Ninth Avenue, Denver, CO 80262.

POSTDOCTORAL POSITION available immediately to study the effects of anesthetics on dynamic membrane processes. The project employs a dual-excita-tion/dual-emission spectrometer with CCD detection capability to assess transmembrane signaling events. A strong background in membrane biophysics, biochemis-try or pharmacology is essential. Submit curriculum vitae to: Dr. Hugh Schieren, Department of Anesthesiolo-gy, Jefferson Medical College, Suite G6460, 111 South 11th Street, Philadelphia, PA 19107.

POSTDOCTORAL POSITION IN MOLECU-LAR BIOLOGY available immediately to study the DNA binding and topoisomerase activities of proteins involved in the initiation of DNA replication. The research involves the use of both biochemical and molecular biological techniques. Send curriculum vitae and names of two references to: Dr. Saleem Khan, Department of Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine, Room E1240 BST, Pittsburgh, PA 15261. An Equal Opportunity/Affirmative Action Émployer.

#### **POSITIONS OPEN**

#### NEUROCHEMISTRY/ NEUROENDOCRINOLOGY

A POSTDOCTORAL FELLOWSHIP position is available in the Department of Pharmacology/Toxicolo-gy at Michigan State University (MSU) to study the interactions of hypothalamic catecholaminergic systems with peptidergic and serotonergic neurons in neuroen-docrine regulation of pituitary hormone secretion. Experience in molecular biology techniques is preferred, but not essential. Send curriculum vitae and the names of three references to: Dr. Keith J. Lookingland, Department of Pharmacology/Toxicology, Michigan State University, B-432 Life Sciences Building, East Lan-sing, MI 48824. MSU is an Affirmative Action/Equal Opportunity Institution.

#### POSTDOCTORAL FELLOWSHIP

Starting in early 1993, a three-year position will be available to identify and characterize roles for growth factors in regulating proliferation and differentiation of primary muscle cells and development of intact neuro-muscular junctions in three-dimensional culture. Research will be performed under control and simulated microgravity conditions in preparation for space flight experiments. Highly qualified individuals with experience in molecular and/or cellular biology of growth factors are encouraged to apply. Preference will be given to candidates who have demonstrated the ability to formulate and test novel research questions. Salary is negotiable. Research will be conducted in the rapidly growing, vibrant medical research department of a mulitidisciplinary children's hospital that is the major teach-ing affiliate of Jefferson Medical College. Applications should include a letter of interest, curricu-

lum vitae and names of references. Please send inquiries to:

Director, Muscle Regeneration Laboratory Alfred I. duPont Institute Research, Medical Cell Biology Department P.O. Box 269 Wilmington, DE 19899

### NATIONAL ZOOLOGICAL PARK POSTDOCTORAL FELLOWSHIPS IN MOLECULAR EVOLUTION

Postdoctoral fellowships in molecular evolution are available for research in the Molecular Genetics Laboratory at the National Zoo in Washington, DC. Primary research areas include conservation/population genetics, developmental genetics, immunogenetics, sociobiology, or systematics, and may be collaborative with researchers in the departments of Animal Health, Animal Collections, Conservation, Pathology, or Zoological Research. Stipends are \$24,000 annually, including travel. Tenures are for 12 to 24 months. Deadline: 15 February 1993. For information and applications, write: Office of Fel-lowships and Grants, Desk MS, Smithsonian Institu-tion, Washington, DC 20560.

# C. H. BEST INSTITUTE POSTDOCTORAL FELLOWSHIP

In Diabetes Research, Molecular Endocrinology, Mo-lecular Biology, Differentiation, Reproductive Biology, Immunology, structure and function of membranes or Lipid Metabolism. Tenable in the Banting and Best Department of Medical Research for two years after July 1, 1993. Competitive stipend. Available to new Ph.D.'s r, 1753 competitive superior available to new first a superior candidates with less than two years of postdoctoral training by June 30, 1993. Send curriculum vitae, tran-Scripts and three letters of reference, preferably before January 15, 1993 to: Chair, Fellowship Committee, Banting and Best Department of Medical Research, University of Toronto, Toronto, Ontario, Canada M5G 1L6.

HOLLAENDER POSTDOCTORAL FELLOW-SHIPS available to conduct energy-related research in the life, biomedical, and environmental sciences. Fellowthe life, biomedical, and environmental sciences. Fellow-ships are tenable at Department of Energy laboratories with programs sponsored by the Office of Health and Environmental Research. Stipend is \$37,500. A doctoral degree received after May 1, 1991, is required as is U.S. *citizenship or PRA status*. Deadline is January 15, 1993. Contact: Hollaender Postdoctoral Fellowships, Sci-neae/Encinearing Education Division Oals Pider Inence/Engineering Education Division, Oak Ridge In-stitute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831–0117, Telephone: (615) 576-

#### **POSITIONS OPEN**

POSTDOCTORAL RESEARCHER. Two-year position available immediately to study aspects of the interaction between sewage disposal and kelp forest community dynamics. Research topic is open, but should be designed to understand long-term population trends of important species. Salary is commensurate with UC pay scales. Clos-ing date is 31 January 1993. UCSD is an Affirmative Action/Equal Opportunity Employer. Submit curriculum vitae, statement of research background and goals, and names of references to: Dr. Mia Tegner, Marine Life Research Group 0201, Scripps Institution of Ocean-ography, University of California San Diego, 9500 Gilman Drive, La Jolla, CA 92093–0201.

# POSTDOCTORAL FELLOW PROTEIN SIMULATION AND REDESIGN

Use MD simulations (1) to study structure-functiondynamic relations of enzymes and (2) to propose experimentally testable modifications to alter enzyme specificity and efficiency in order to improve environmental biodegradation of recalcitrant pollutants, as well as other related objectives of interest to the U.S. Department of Energy, such as improving industrial processes and drug design. Interaction with experimental collaborators and ence with a major MD package such as AMBER or CHARMM and a good working knowledge of protein biophysical chemistry are preferred. Starting stipend is at least \$36,000. Send résumé (include e-mail address). representative publications, and names of 3 references (include telephone number). Doctoral degree must have been awarded within last 3 years. Starting date in Sum-mer or Fall of 1993 (flexible). Location: National Lab-oratory in southcentral Washington State. Contact: Dr. Rick L. Ornstein, Molecular Science Research Center, Battelle-Pacific Northwest Laboratories, Depart-ment BAH5044, P.O. Box 999, K1-95, Richland, WA 99352. Equal Opportunity Employer.

#### POSTDOCTORAL FELLOW

The Department of Molecular Biology, UMDNJ, School of Osteopathic Medicine invites applicants for School of Osteopathic Medicine invites applicants for two Postdoctoral positions to study the interrelationship between human DNA repair and the elements involved in cell cycle regulation (*J. Biol. Chem.*, January 1993). Current projects focus on gene expression and protein cell culture model. Qualified applicants will have exper-tise in protein biochemistry, molecular biology tech-niques and immunochemistry. Salary range is \$27,000 to \$32,000 per year. Interested applicants should submit \$32,000 per year. Interested applicants should submit curriculum vitae, summary of research experience and three letters of reference to: Sal Caradonna, Ph.D., Department of Molecular Biology, UMDNJ, School of Ostcopathic Medicine, 401 South Central Plaza, Stratford, NJ 08084. UMDNJ, New Jersey's university of the health sciences, is an Affirmative Action/Equal Em-ployment Opportunity Employer, M/F/H/V, and a member of the University Health Science of New Jersey. of the University Health System of New Jersey.

> UMD New Jersey

#### POSTDOCTORAL FELLOW

Positions are available in a multidisciplinary training program to study the integrative regulation of the myo sin phosphorylation and nitric oxide synthase systems in cells. Biophysical, biochemical, cell biology and recom-binant DNA techniques will be used to examine functions of specific proteins in relation to second messenger pathways. Please address inquiries to: James T. Stull, pathways. Please address inquines to James 1. June Ph.D., Department of Physiology, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235–9040, Telephone: 214/688-6849, FAX: 214/688-2974. An Affirmative Action/Equal Opportunity Employer.

# RESEARCH ASSOCIATE POSTDOCTORAL FELLOW

Positions available for persons with expertise in pro-tein chemistry and/or molecular biology to participate in NIH-funded projects on immunoprotective determi-nants of *M. tuberculosis* and iron proteins of *L. pneumo-phila*. Send curriculum vitae, statement of future research interests, and 3 references to: Dr. Marcus A. Horwitz, Department of Medicine, UCLA School of Medicine, 10833 Le Conte Avenue, Los Angeles, CA 90024– 1688. FAX: 310-794-7156.

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



# **GLAXO INSTITUTE FOR MOLECULAR BIOLOGY**

Research at the Glaxo Institute in Geneva is directed towards the discovery of novel molecular mechanisms that can be used as drug targets to treat serious diseases. In particular, research is focused on the CNS, allergies and inflammatory conditions. We have an outstanding opportunity for a

# Post-Doctoral CELLULAR IMMUNOLOGIST

to study the role of the chemokine family members in the activation of neutrophils and eosinophils

The successful applicant will work with Dr. Kevin Bacon and Dr. Timothy Wells in an interdisciplinary team of immunologists, biochemists and molecular biologists investigating chemokine-receptor interactions in allergy. Informal enquiries should be directed to Dr. Kevin Bacon (+41 22 706 97 08).

The Institute provides a dynamic international research environment and actively encourages collaborative projects with academic groups as well as the publication and presentation of results at scientific meetings.

We offer an excellent compensation and benefits package and significant opportunities for career development. Geneva, situated in a very attractive part of Europe, has many advantages as a place to live. The Institute for Molecular Biology is part of the Glaxo group, one of the world's most successful healthcare companies which has an outstanding reputation for the quality of both its research and products.

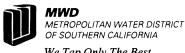
If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three referees to : Rita Gloor, Personnel Manager, Glaxo Institute for Molecular Biology, 14 chemin des Aulx, 1228 Plan-les-Ouates, Geneva, Switzerland.



# Senior Microbiologist (Limnologist) \$4,752 - \$5,906/mo.

MWD, one of the world's largest water agencies, seeks an experienced limnologist. This is a working supervisor position to provide field support for water quality monitoring throughout Metropolitan's system and conduct basic and applied research on taste and odor control, storm water runoff, water quality and aquatic weed control. Advanced open water diving certification is desired. Demonstrated experience required with design and execution of limnological field studies including statistical analysis, report writing, and oral presentation. M.S. in limnology related Aquatic Sciences desired with at least two years' management or supervisory experience. Position location: City of La Verne. Limited relocation assistance available.

To request an application, call **1-800-540-6311** (in CA) or (**213**) **250-6453** and refer to Job Code 92-215 JB. Resumes cannot be substituted for a completed application. Open only until sufficient applications are received. MWD supports the principles of equal opportunity and affirmative action. Women, minorities, veterans and the disabled are encouraged to apply.



OF SOUTHERN CALIFORNIA We Tap Only The Best

#### ASSISTANT PROFESSORSHIP

A full-time, tenure-track position is available in the Department of Tumor Biology at The University of Texas M. D. Anderson Cancer Center in Houston for a qualified applicant in the area of tumor cell biology, tumor biochemistry, tumor molecular biology or other fields related to cancer research. Particular emphasis will be in the area of cancer invasion and metastasis. Candidates should have a doctoral degree and postdoctoral experience and should demonstrate exceptional potential in research and graduate teaching. Applicants should include a curriculum vitae, names and telephone numbers of at least five references and a 1-2 page statement of current re-search activities and future interests to: Prof. Garth L. Nicolson, Chairman, Department of Tu-mor Biology (Box 108), The University of Texas M. D. Anderson Cancer Center, 1515 Holcombe Blvd., Houston, TX 77030.

The University of Texas in an Affirmative Action/Equal Opportunity Employer. Smoke-free environment.

#### **POSITIONS OPEN**

#### POSTDOCTORAL RESEARCH SCIENTIST

Postdoctoral position available immediately in an active research group studying cellular and molecular as-pects of low dose-rate irradiation relevant to the radiation therapy of cancer. Experience in cell culture tech-niques and in the radiobiology of human cells required. Send curriculum vitae, names and addresses of three references to: Dr. Eric J. Hall, Center for Radiological Research, Columbia University, 630 West 168th Street, New York, NY 10032. Affirmative Action/Equal Opportunity Employer.

**RESEARCH ASSOCIATE** for a Medical Genetics cal research and some laboratory service for the diagnosis of metabolic diseases. The successful candidate will lead of metabolic diseases. The successful candidate will lead the section specializing in organic acid analysis of phys-iological fluids. A Ph.D. in science and knowledge of gas chromatography mass spectrometry is required for a faculty position. The candidate must have at least one year of experience in a diagnostic biochemical genetics laboratory. Starting salary is \$27,040 per year. Send résumé or apply in person to: Georgia Department of Labor, 1275 Clarendon Avenue, Avondale Estates, GA 30002, or to the nearest Georgia Job Placement Center. Job Order #5580291.

#### **RESEARCH SPECIALIST** Specialist in Transgenic Mice

The Howard Hughes Medical Institute (HHMI) has an opening for a Research Special-ist in its research unit at the National Jewish Center for immunology.

Responsibilities include transgenic mice production, mouse colony management, embryonic manipulation, microinjection and rederivation of existing mouse strains.

Requirements for this position are a B.S. degree in a related field, and five years of experi-

HHMI offers excellent salaries, and a generous benefits package. Please send curriculum vitae, salary requirements and three references to: Dr. P. Marrack, Howard Hughes Medical Institute, 512K Goodman Building, National Jew-ish Center, 1400 Jackson Street, Denver, CO 80206. An Equal Opportunity Employer.

**HOWARD HUGHES** MEDICAL INSTITUTE

#### IMMUNOLOGIST

The Division of Pathobiology and Immunobiology of the Yerkes Regional Primate Research Center, and the Department of Microbiology and Immunology, School of Medicine, Emory University have an opening for an Candidates should have a Ph.D., D.V.M., M.D., or equivalent and should have sufficient research experience to demonstrate the ability to establish an independent research program in areas related to the pathogenesis of AIDS and related retroviruses in nonhuman primate models. The successful applicant will also participate in ongoing clinical, virological, and pathological studies with human or simian immunodeficiency viruses. The primary appointment will be at the Yerkes Primate Center, with a secondary, research-track appointment in the Department of Microbiology and Immunology. Salary is reportable and commendate with experience. The position is additional commendately. Letters of application including curriculum vitae, a brief statement of research interests, and the names of three references, should be forwarded to: Dr. Harold McClure, Associate Director, Yerkes Primate Research Center, Emory Univer-sity, Atlanta, GA 30322. Applications should be sub-mitted by January 1, 1993. Emory University is an Equal Opportunity/Affirmative Action Employer.

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

#### **POSITIONS OPEN**

ASSOCIATE/POSTDOCTORAL RESEARCH POSITION. The Division of Endocrinology, Department of Pediatrics, University of Pittsburgh has an open-ing for a Ph.D. Molecular Biologist to participate as a Research Associate/Postdoctoral trainee in research relating to the molecular mechanisms involved in the regula-tion of growth factors/receptors in growth and develop-ment. Fully operational and equipped laboratory currently staffed by M.D., Ph.D. and technical support with en-dowed and NIH funding. The successful candidate would be eligible for faculty appointment. Salary and benefits are competitive. This position is available July 1, 1993. In order to ensure full consideration, applications must be received by March 31, 1993. Contact: Dr. Mark A. Sperling, Chairman, Department of Pediatrics, Chil-dren's Hospital of Pittsburgh, 3705 Fifth Avenue, Pittsburgh, PA 15213. The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.

**RESEARCH ASSOCIATE** to manage Transgenic Facility. The Departments of Biological Sciences and Pediatrics, University of Pittsburgh and Children's Hos-pital of Pittsburgh are currently seeking a Ph.D. to direct pital of Pittsburgh are currently seeking a Ph.D. to direct the operation of a transgenic facility already under devel-opment. Experience in Stem Cell Technology is preferred but not required. Salary competitive with industry and commensurate with experience. This non-tenure-stream position is available July 1, 1993. In order to ensure full consideration, applications must be received by March Constitution, applications must be received by March 31, 1993. Contact: Dr. Terry Van Dyke, Department of Biological Sciences, 278 Crawford Hall, Pitts-burgh, PA 15260. Telephone: (412) 624-6987, FAX: (412) 624-4759. The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.

# VISION SCIENTIST NEUROANATOMY/NEUROPHYSIOLOGY

The University of Missouri-St. Louis School of Op-The University of Missouri-St. Louis School of Op-tometry seeks a vision scientist to teach professional and graduate level neuroanatomy/neurophysiology, and pos-sibly human anatomy/physiology, ocular anatomy/phys-iology. Active research and external support expected. Rank/salary/appointment date negotiable. Letter, ré-sumé, names of three references by February 1, 1993 to: Dr. Jerry L. Christensen, Dean, School of Optometry, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, MO 63121. The University of Missouri is an Eaual Opnortunity/Affirmative Action Em-Missouri is an Equal Opportunity/Affirmative Action Em-ployer, and complies with the Americans with Disabilities Act of 1990.

#### ANIMAL ECOLOGIST

The Biology Department of City College of the City University of New York hopes to fill a tenure-track position in Animal Ecology for Fall 1993. We seek a candidate who can teach in our Organismic Biology courses for majors (core and electives) and who will develop a strong research program based on local environmental resources. Teaching and research activities in both our undergraduate and graduate programs (M.A. and Ph.D.) will be expected, and college or university teaching experience would be desirable. Rank and salary are open and depend upon experience and qualifications. Please send detailed curriculum vitae, including teaching experience and research plans, and the names, addresses, and telephone numbers of four references by February 3, 1993 to: Dr. Linda H. Mantel, Chair of Search Committee, City College of New York, Convent Avenue and 138th Street, New York, NY 10031. An Affirmative Action/Equal Opportunity Employer, M/F.

SENIOR ANALYTICAL CHEMIST/BIOCHEM-IST—Responsible for analytical methods development/ validation of biopharmaceuticals, including capillary and gel electrophoresis, HPLC and spectroscopy. Experience in peptide sequencing/mapping, amino acid and/or car-bohydrate analysis would be beneficial. Ph.D. in chemistry/biochemistry with two to four years of industrial experience or equivalent combination is required, along with a strong background in troubleshooting and assay

development. Send résumé with salary requirments in strict confi-dence to: Director of Human Resources, Applied Analytical Industries, Inc., 1206 North 23rd Street, Wilmington, NC 28405.

# Chief of Division





### CSIRO Division of Building, Construction & Engineering, Victoria, Australia

We are seeking an outstanding person who will provide strong leadership in identifying and delivering to research objectives which fulfil the needs of the building and construction industry and those of its suppliers and clients both private and public. This person will, through a combination of management skills, client orientation and a focussed concern for staff, create a climate of first class research and research delivery.

The Division's primary mission is to improve the quality, cost-effectiveness and international competitiveness of Australia's building and construction industries and to ensure equivalent benefit to the owners or users of particular facilities and of the infrastructure such facilities comprise. This mission will be achieved through the establishment of close working relationships with owners and users as well as with contractors, suppliers and constructors, and a corresponding relationship with government and public agencies.

The Division has some 310 staff located in well equipped laboratories at two locations, Highett (Melbourne), and North Ryde (Sydney).

The Chief will be responsible to the Director of the Institute for the leadership and direction of the Division's research, commercialisation and technology transfer programs and the effective management of the Division's operations. He or she will also liaise with other Divisions of IMEC and CSIRO where crossdivisional inputs are required.

Candidates should have a sound appreciation of the operation and needs of Australia's construction and related engineering industries. A strong commitment to first class research, the transfer of research results to industry, demonstrable management skills, organisational ability and communication skills of a high order, together with the ability to interact with government and the building and construction industries at a senior level, will all be of importance.

We invite applications for the position and would also like to hear from people within the field who may wish to suggest possible candidates.

The current salary for the position will be not less than \$A95K per annum and for an exceptional candidate a salary up to \$A104K per annum would be offered.

Appointment to CSIRO is for an indefinite period and carries Australian Government superannuation privileges, subject to normal conditions. The position of Chief of the Division is offered for a term of five years with subsequent options for a further term if mutually desired or for a senior position in the Organisation.

Alternatively, a successful candidate may wish to negotiate a private contract.

The Chairman of the Selection Committee, Dr A F Reid, would be pleased to provide further information or discuss the position with potential applicants. He would also be pleased to receive nominations for the appointment from people with standing in the field. He may be contacted in Sydney, Australia, by telephoning 61 2 887 8212 or on facsimile 61 2 887 8197.

Applications stating full personal and professional details, and names of at least three professional referees should be directed to: The Director, CSIRO Institute of Minerals, Energy & Construction (IMEC) PO Box 93, North Ryde, NSW 2113 AUSTRALIA, Closing date for applications is 29 January 1993



CSIRO IS AN FOUAL OPPORTUNITY EMPLOYER

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# A FORMULA FOR YOUR FUTURE

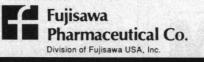
The formula for your future begins with Fujisawa Pharmaceutical Co. and continues with such elements as innovative technology, a visionary work environment and professional growth. We are currently seeking a:

### **SR. SCIENTIST**

Position will prepare technical reports for the FDA (including INDs, NDAs and Investigator Brochures), maintain complete library of publication on FPC drugs and coordinate/review prepared study reports.

Qualifications include Ph.D., Pharm.D. or M.D. in Pharmacology or Biomedical Sciences with several years experience in the pharmaceutical industry or biomedical research. Excellent writing and editing skills required. Must be computer competent (WordPerfect 5.1) and have superior oral communication/organization skills. Knowledge of FDA regulations for INDs and NDAs helpful.

As an industry leader, we can provide you with a rewarding career opportunity, and an excellent compensation package including a 401(k) plan. For consideration, please forward resume with salary history to: Sheryl Jordan, FUJISAWA PHARMACEUTICAL CO., 3 Parkway North Center, Deerfield, IL 60015. (eoe m/f/d/v)





Roche Diagnostic Systems, a subsidiary of world-renowned Hoffmann-La Roche, is a leader in the development, manufacture, and marketing of analytical and diagnostic products. We have an exceptional opportunity for a Scientist to conduct research leading to the development of diagnostic reagents.

This individual will be responsible for the development of stable liquid clinical chemistry tests for our COBAS Clinical Chemistry Analyzer. The qualified candidate should have a Ph.D in Biochemistry or Chemistry with a strong background in enzymology, and up to 5 years experience in the diagnostic industry (clinical chemistry preferred).

We offer a competitive salary, generous benefits package, and state-of-the-art environment that is conducive to professional success. For consideration, please forward your resume and salary requirements to: Mr. John Mucci, Dept. KFM2, Roche Diagnostic Systems, 1080 U.S. Highway 202, Branchburg, New Jersey 08876. We are an equal opportunity employer.

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As part of our continuing commitment to the development of innovative bio-processes, the Biotechnology Department of the Amoco Technology Company has the following openings:

#### **FERMENTATION SCIENTIST**

The candidate will participate in the development of a fermentation process for production of a secondary compond in Baker's yeast. The candidate will interact with a multidisciplinary team in geneticists, biochemists, and fermentation scientists to define the growth and medium parameters for the development of a commercial process. Two to five years of related experience in optimizing medium components, fermentation processes, and strain development is required. Experience in the operation of small and pilot scale fermentors is also required. PhD preferred, MS with relevant experience will be considered.

#### MICROBIOLOGIST

The candidate will conduct research to improve the productivity of a secondary compound in Baker's yeast. The candidate will perform research on strain development through classical genetic and fermentation studies. Two to four years experience in strain improvement and the operation of small and pilot scale fermentors is required. BS preferred, fundamental knowledge in Genetics, Biochemistry, and Molecular Biology is essential.

### **MOLECULAR BIOLOGIST**

The candidate will conduct research to improve the productivity of a secondary compound in recombinant Baker's yeast cells. The candidate will be expected to devise, implement, and monitor the success of gene cloning strategies for the optimal expression of foreign genes in Baker's yeast. Two to four years experience in gene cloning, analysis of gene expression, and product formation is required. BS preferred, fundamental knowledge in Genetics, Biochemistry, and Molecular Biology is essential.

For immediate consideration, please forward your resume in confidence to:



Recruiting Coordinator AMOCO RESEARCH CENTER P.O. Box 3011 F-3HR/ Dept. RA-1218 Naperville, IL 60566-7011 Equal Opportunity Employer M/F/H/V

# Clinical Research Associate

3M Pharmaceuticals (Division of 3M Company) has an immediate need for a Clinical Research Associate, who will be involved in the development of pharmaceutical products, e.g., for the treatment of viral and pulmonary disorders. This position emphasizes implementation of clinical trials impacting important business goals. This associate will be based in St. Paul, Minnesota at 3M Center. Moderate travel will be required.

A college degree (BS/BA) with a biological sciences major and at least 2 years of Phase II/III clinical research monitoring experience is required. Scientific writing experience, initiative, good interpersonal skills, and being a team player are highly desirable. Experience liaising with Clinical Research Organizations (CROs) is a definite plus.

For confidential consideration, please send your resume to the address below no later than 2 weeks after the appearance of this announcement. 3M provides an excellent benefits package and salary commensurate with experience. No telephone inquiries or employment agency referrals, please.

#### NAS Reply Service Dept. 12MP86 One Appletree Square Minneapolis, MN 55425

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Program of Human Biodynamics Division of Biological Sciences University of California, Berkeley

Applications are invited for a tenure-track Assistant Professor position starting July 1, 1993. Candidates should have demonstrated excellence, originality, and productivity in biomechanics and should have strong interests in undergraduate and graduate teaching. Research areas of interest may range from single cells to muscle systems to intact organisms; they may include, but are not limited to, mechanics of biomaterials and tissues, muscle mechanics and energetics, regulation of contraction, cardiovascular biomechanics, musculo-skeletal biomechanics, and movement biomechanics.

Applications, including a curriculum vitae, a list of publications, a reprint of the three most significant publications, a brief (two pages maximum) statement of research and teaching objectives, and three letters of evaluation should be sent to: Professor Timothy P. White, Chair, 103 Harmon, University of California, Berkeley, CA 94720.

The closing date for receipt of applications is January 29, 1993.

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

#### DIRECTOR CENTER FOR RADIOACTIVE WASTE MANAGEMENT THE UNIVERSITY OF NEW MEXICO

The University of New Mexico College of Engineering is seeking a Director of the Center for Radioactive Waste Management. The Center, which is now being formally organized, has over twenty faculty from across the university conducting research programs in various topics in radioactive waste management, with annual funding of over \$2 million. UNM has degree and certificate programs with emphases in radioactive waste issues and an extensive series of non-credit videoconferences and short courses. The Director will assume a significant role in the New Mexico Waste-Management Education and Research Consortium (WERC), a consortium of New Mexico State University, New Mexico Institute of Mining and Technology, The University of New Mexico, Navajo Community College, Sandia National Laboratories and Los Alamos National Laboratory, which is funded primarily by the U.S. Department of Energy.

Candidates for Director should have an international reputation in radioactive waste management, managerial skills in an interdisciplinary setting, ability to generate and supervise externally funded research, and ability to work effectively with both the technical community and non-technical public.

Candidates must have a doctorate in engineering or science and be qualified for the position of tenured professor in one of the departments of the College of Engineering. Joint appointment with another department in the University may also be considered.

Interested persons should send a complete resume and a list of four references to:

Dr. David Kauffman, Associate Dean College of Engineering The University of New Mexico Albuquerque, NM 87131

Applications must be received by January 29, 1993, for primary consideration. Salary will be commensurate with qualifications and experience.

The University of New Mexico is an equal opportunity/affirmative action employer.

#### **COMPUTATIONAL BIOLOGY**

The Departments of Biological Sciences and Biomedical Sciences invite applicants for a ioint, tenure-track position at the rank of AS-SISTANT PROFESSOR, Candidates should have an active research program (with promise of extramural funding) that involves the development and use of computational techniques, preferably in the fields of macromolecular structure or sequence analysis, prediction and/or modeling. The successful candidate will have the opportunity to interact with a large number of biophysicists and molecular biologists at the University at Albany and will have access to excellent computing and other core research facilities. The candidate will develop a course in computational approaches in structural biology, to be offered to upper level undergraduate students from various science and mathematics/computer science departments, as well as to graduate students from the host departments. The expected start date is September 1, 1993. Applicants should send a letter of intent, curriculum vitae, statement of research plans, and arrange for at least three reference letters to be sent by February 1, 1993 to:

#### David Shub, Ph.D., Chair, Search Committee Department of Biological Sciences University at Albany SUNY 1400 Washington Avenue Albany, NY 12222

The University at Albany, SUNY, is an Equal Opportunity, Affirmative Action employer. Applications from women, minority, handicapped persons and special disabled or Vietnam era veterans are especially welcome.

# SENIOR SCIENTIST and ASSOCIATE SCIENTIST

# PROTEIN CRYSTALLOGRAPHY

We currently have opportunities for individuals to perform research leading to novel pharmaceutical agents based on the three dimensional structures of proteins.

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Specific responsibilities include solving structures of relevant proteins such as receptor-ligand complexes, cell adhesion molecules and a variety of enzymes; and contributing to the analysis of these structures and their exploitation for drug design. In addition, these scientists will join a dynamic Macromolecular Structure Group which includes existing laboratories in protein crystallography, biomolecular NMR, protein expression, purification and characterization, and molecular modeling.

Qualifications for the SENIOR SCIENTIST include a Ph.D in Biochemistry or a related field, broad experience in all areas of macromolecular crystallography, knowledge of protein structure and function, and the ability to perform collaborative research. Postdoctoral experience is highly desirable. **RESPOND TO MS. ELEANOR MALONE, DEPT. EM232VM** 

Qualifications for the ASSOCIATE SCIENTIST include a BS/MS in Biochemistry/ Chemistry, biochemical skills and experience with proteins. Experience in crystallizing proteins is desirable, but not required. **RESPOND TO MS. JOANNA HARRINGTON**, **DEPT. JH242VM** 

We offer a competitive salary, a bonus program and a comprehensive benefits package. To apply, send resume with salary history/requirements, indicating appropriate contact name and department, to: **Staffing Department, Hoffmann-La Roche Inc.**, **Nutley, New Jersey 07110-1199.** We are an equal opportunity employer.

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# CANCER

# January 29 Special Issue

SCIENCE presents an up-to-date review of this exciting research. Special SCIENCE News and Perspectives section will highlight:

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- What the future holds for R & D

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# Director

## **Radiation Effects Research**

The NATIONAL RESEARCH COUNCIL, operating arm of the National Academy of Sciences, National Academy of Engineering, and the Institute of Medi-cine, is seeking a director to manage the Board on Radiation Effects Research (BRER). BRER performs studies (requested and sponsored by a variety of federal agencies) on the biological effects of exposure to ionizing and nonionizing radiation and man-ages the NRC participation in the Japanese/Ameri-can Radiation Effects Research Foundation (RERF) (located in Japan). Responsibilities include securing and budgeting funds that support the BRER studies; recruiting scientists to serve as committee staff at the NRC; and scientific and members and administrative monitoring and quality control of studies performed by BRER at the NRC. Requires a Ph.D. or equivalent in epidemiology, biostatistics, radiation biology, biophysics, or other radiation-related field; at least 6 years experience in scientific research/administration; and expertise concerning cancer causation. Applicants must be familiar with a wide-range of scientists involved in radiation effects research. Salary is competitive and the NRC maintains an excellent benefits program. Applications and salary requirements should be forwarded by January 15, 1992

to: NRC/CLS, NAS 343 (AL), 2101 Constitution Avenue, Washington, DC 20418. EOE.

# NATIONAL RESEARCH



#### **RESEARCH SCIENTIST**

Research Scientist position available in **Immunology** to join a group studying the basis of immunity and molecular pathogenesis of *Yersinia pestis*, the causative agent of plague. The program is focused on the nature and characterization of protective immunity to plague and on new vaccine development. Experience in immunochemistry and molecular immunology, or cellular im-munology is required. Interested applicants should send curriculum vitae, reprints of representative publications, and names of three references to:

Dr. Arthur M. Friedlander, Chief, Bacteriology Division, U.S. Army Medical Research Institute Fort Detrick, Frederick, MD 21702–5011 Telephone: (301) 619-7341. FAX: (301) 619-2893

The Department of Anesthesiology is recruiting an ASSOCIATE IN RESEARCH with experience using inert gas elimination techniques for quantifying pulmo-nary ventilation and perfusion. Must have master's degree nary ventilation and perfusion. Must have master's degree or at least five years of experience. Salary range is \$32,000 to \$45,000. Application deadline is December 28, 1992. This is a non-tenure-earning position. Please send letter, curriculum vitae, and 3 letters of reference to: J.B. Downs, M.D., Department of Anesthesiology, University of South Florida, 12901 Bruce B. Downs Boulevard, MDC 59, Tampa. FL 33612-4799 LISE in Florid MDC 59, Tampa, FL 33612-4799. USF is an Equal Employment Opportunity/Affirmative Action Employer.

#### CHEMIST/RESEARCH MANAGER

A progressive Midwest company manufacturing spe-cialty animal feed ingredients seeks a Research Manager to direct research concerning its products in antioxidants, to direct research concerning its products in antioxidants, carotenoids, feed additives, animal feed flavors and sur-factants. The successful candidate will possess an ad-vanced degree in chemistry with a record of creative science. Experience in GC, GC-MS, HPLC and FT-IR helpful. This is a position for a hands-on laboratory chemist who also enjoys management of dynamic tech-nical staff members. U.S. citizenship required. Kamin is a non-employing environment. Joh offer is

nical staff members. U.S. citizenship required. Kemin is a non-smoking environment. Job offer is conditional on passing a physical including a drug screen. Send résumé detailing relevant experience to: Dr. C. E. Nelson, VP of Research and Development, Kemin Industries, Inc., P.O. Box 70, Des Moines, IA 50301. An Equal Opportunity Employer.

# QUANTITATIVE GENETICIST ANIMAL BREEDER

The Oceanic Institute seeks individual to assist in experimental design, data management and analysis and report imenta design, data management and analysis and report writing for selective bereding program for marine shrimp in Hawaii. Successful candidate will be employed in fed-erally funded R&D program to stimulate U.S. shrimp farming. A selective breeding program to improve shrimp growth rate using Specific Pathogen Free (SPF) shrimp (*Penaeus vannamei*) has been initiated. Individual will de-(renaus vaniant) has been initiated. Individual will de-sign experiments, manage data, prepare reports and coau-thor publications. Candidates should have M.S. in quan-titative genetics or animal breeding, strong quantitative/ statistics background, technical writing skills, knowledge of practical animal breeding systems, experimental design, database management, and presentation graphics using PC systems. Letters of interest and résumés should be mailed to: The Oceanic Institute, Shrimp Program, Makapuu Point, Waimanalo, HI 96795.

#### MICROBIOLOGIST

The Center for reproduction of Endangered Species, the multidisciplinary research branch of the Zoological Society of San Diego, invites applications for a full-time STAFF SCIENTIST. The successful candidate will at first concentrate his/her efforts on diagnostic technology for and epidemiology of Mycobacterium/paratuberculosis, and thereafter establish an independent, externally funded research program. Applicants must have a Ph.D. or D.V.M. with a strong research background in micro-biology or a related field. Applicants should also possess an interest in environmental or evolutionary microbiology. Liberal equipment funds are available. Submit curriculum vitae, reprints, a statement of research interests, and three letters of reference to: Chair, Search Interests, mittee, CRES, Box 551, San Diego, CA 92112– 0551, prior to February 15, 1993. Equal Opportunity Employer, M/F/H/V.

#### **POSITIONS OPEN**

TOXICOLOGIST Position available immediately for a Ph.D. with one to three years of experience in toxicology or related biological science and an interest in risk assessment. The ILSI Risk Science Institute (RSI), a public, nonprofit research foundation within the International Life Sciences Institute, was established in 1985 to improve risk assessment by strengthening the scientific principles on which assessments are based. Applicant will work with scientists from diverse disciplines and will be responsible for evaluating and analyzing technical data, drafting and editing technical manuscripts, and coordinating and staffing technical manuscripts, and contra-nating and staffing technical working groups. Send cur-riculum vitae to: ILSI Human Resources, 1126 Six-teenth Street, NW, Washington, DC 20036. ILSI is an Equal Opportunity Employer.

The Division of Plastic and Reconstructive Surgery, within the Department of Surgery at the Pennsylvani State University, Milton S. Hershey Medical Center, College of Medicine is seeking a BASIC SCIENTIST for a tenure-track appointment. Qualified applicants should have a Ph.D., M.D., or equivalent degree with research experience in cellular and molecular biology, and physiology. This is a research position and the candidate will be expected to obtain extramural funding. The candidate will also supervise the Plastic and Reconstructive Surgery Research Laboratory, and assist in the basic science education of surgery residents and Ph.D. candi-dates. Candidates with research interests including microvascular circulation, developmental biology, biochem-istry, physiology and molecular biology are urged to apply. Outstanding applicants with other research inter-ests will be considered. Rank commensurate with expe-

rience. An Affirmative Action/Equal Opportunity Employer; women and minorities encouraged to apply. Please send curriculum vitae and a brief description of research interests by February 1, 1993, to: Ernest K. Manders, M.D., Professor of Surgery and Chief, Division of Plastic and Reconstructive Surgery, The Milton S. Hershey Medical Center, P.O. Box 850-SC, Hershey, PA 17033.

ASSISTANT RESEARCH SCIENTIST. This position in a biomedical research laboratory pays a salary of \$26,265 per year for forty hours per week. Major duties: microdissection of skeletal and cardiac muscle cells. use of transducers, computers, and electronics for physiological and biochemical experiments on the cells, supervision of laboratory technicians and students. Sufficient training and experience in the area of skeletal and cardiac muscle physiology to function as an independent investigator is essential. Apply in person or by résume to: Georgia Department of Labor, Job Order #GA 5584904, 601 Greene Street, Augusta, GA 30913 or to the nearest Georgia Job Service Center. This is an employer paid advertisement.

ASSISTANT SCIENTIST. The Department of Ophthalmology, University of Florida, invites applica-tions for a full-time position as an Assistant Scientist to conduct grant-supported study of the immunology, bio-chemistry, cell biology or molecular biology of rhodopsin. Candidates must have at least a Ph.D. and postdoctoral training in relevant research areas; experipostdoctoral training in relevant research areas; experi-ence in vision research is a plus. Recruiting deadline is January 31, 1993, to start February 15, 1993. Candi-dates should submit a letter of application stating re-search experience, curriculum vitae, and have three letters of reference sent to: Paul A. Hargrave, Ph.D., Profes-sor, Department of Ophthalmology, Box 100284 JHMHSC, University of Florida, Gainesville, FL 32610-0284. The University of Florida is an Equal Opportunity/Affirmative Action Employer.

NEW ENGLAND AQUARIUM invites applica-tions for an ASSOCIATE SCIENTIST in the Conservation Biology of Fishes with emphasis in Physiological Ecology. The candidate is expected to initiate a compar-ative research program with both regional and tropical elements. The candidate should hold a Ph.D. and have at least 3 years of postdoctoral experience in both field and laboratory studies. A proven track record in grant funding is also necessary. Send curriculum vitae, research interests, and three references to: Human Resources Manager, New England Aquarium, Central Wharf, Boston, MA 02110. No telephone calls, please. Re-sponse to selected candidates only. Equal Opportunity Employer.

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#### **POSITIONS OPEN**

**RESEARCH ADMINISTRATOR:** manage marine parasitology and pathology program, train and supervise staff. Starting salary \$2,920.45 monthly. Investigate, staff. Starting salary 52,920.45 monthly. Investigate, document, and develop prevention strategies for diseases in maricultured and feral finfish; develop aquatic pathol-ogy network; independently describe and type marine fish Protista: publish manuscripts in peer reviewed jour-nals. Bachelor's degree in Physical or Natural Sciences or Mathematics and four years of relevant professional experience, one in a supervisory capacity; or a master's degree and three years of experience as described; or a doctorate as described, one year in a supervisory capacity. Job Order No. 0728724, Job Service of Florida, P.O. Box C, Clearwater, FL 34618–4090.

#### MEETINGS

#### PHARMACEUTICAL DESIGN USING EPITOPE SELECTION TECHNOLOGIES

February 1–2, 1993; Hyatt Rickeys, Palo Alto, CA. SPEAKERS: G. Smith, M. Geysen, R. Balint, R. Houghten, J. Wells, R. Hoess, K. Lam, R. Ladner, M. Kahn, W. Dower, J. Winter, C. Craik, L. Loeb, A. Ellington, L. Griffin, J. Szostak, S. Fodor, C. Tuerk, J. Blaney, C. Barbas, F. Cohen, D. Burton, B. McDowell, J. Marks. Organizers: James Larrick; Robert Balint. Abstracts due: January 15, 1993. Sponsor: Palo Alto Institute of Molecular Medicine, 2462 Wyandotte Street, Mountain View, CA 94043; FAX: 415-903-9645; Telephone: 415-694-4996.

# **BIOLOGY OF DISEASE VECTORS** June 20 to July 3, 1993 Colorado State University Fort Collins, Colorado

This unique course introduces the biology of vectors of infectious diseases and emphasizes current molecular biological, genetic, biochemical, and physiological re-search. Introductions to significant aspects of vector biology, including host seeking, blood feeding, organ structure-function, gene regulation, vector manipulation and containment, and control, are covered and followed by in-depth analyses of selected major vector borne diseases. Faculty are drawn mainly from the MacArthur Foundation Network on the Biology of Parasite Vectors.

The course is designed for advanced graduate students, postdoctoral fellows, and independent investigators. The course can be taken for college credit. Accommodations are located on the main campus of Colorado State University, near lecture and laboratory facilities. Vector-pathogen experimentation and demonstrations are conducted in the containment facility of the Arthropod-borne and Infectious Diseases Laboratory of the CSU Foothills Campus. A portion of the course will be given

at the CSU Pingree Park Mountain Campus. Limited to 30 students. Enrollment is competitive. Financial aid (based on need) will be available. Applica-Financial and (based on need) will be available. Applica-tion deadline is February 28, 1993. For information and application forms, contact: Dr. William C. Marquardt, Telephone: (303-491-5994 or 491-7167), FAX: (303-491-1815), Colorado State University, Arthro-pod Borne and Infectious Diseases Laboratory (AIDL), Foothills Campus, Fort Collins, CO 80523, ÙSA.

#### **COURSES AND TRAINING**

### MODELING STRUCTURED POPULATIONS IN MARINE, TERRESTRIAL AND FRESHWÄTER ECOSYSTEMS

Cornell University 16 June-18 July 1993. Theory and applications of structured models (matrix, PDE, ODE); for graduate students and recent doctorates in ecology, biological oceanography, applied mathematics. Travel, housing and expenses covered. Organizers: Hal Caswell (WHOI) and Shripad Tuljapurkar (Stanford). Send Or. Hal Caswell, Biology Department, Woods Hole Oceanographic Institution, Woods Hole, MA 02543 by 15 February 1993.

#### **COURSES AND TRAINING**

#### GRADUATE TRAINING IN VIRAL ONCOLOGY AND IMMUNOLOGY

Stipends are available for students pursuing a Ph.D. in molecular oncology or immunology beginning September 1993. The principal interests of participating faculty are viral and cellular oncogenes, growth control, and molecular, cellular, and tumor immunology. Students will be supported chiefly by an NIH

programmatic training grant, requiring U.S. citi-zenship, or resident status. We strongly encourage applications from minority students. Limited fund-ing is also available outside of this source. Information and applications forms are available from: Dr. R.B. Carroll, Graduate Student Advisor, Department of Pathology, New York University Medical School, 550 First Avenue, New York, NY 10016.

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#### CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain the Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: Dr. D. Chauncey, Program Director, Accelerated Program, The New England College of Optometry, Room S, 424 Beacon Street, Boston, MA 02115.

MICROINJECTION TECHNIQUES IN CELL BIOLOGY, May 25-June 1, 1993. In this research-oriented course for 24 graduate students, postdoctoral researchers, and investigators, microinjection techniques are combined with analytical light microscopic method-ologies, electroporation, biolistic methods, electrophysiological and photometric approaches to offer an unparalleled view of cellular function and mechanisms of action within the cytoplasm of intact, living cells. Taught by leading practitioners, the course will provide an opportunity to learn techniques of microinjection into a variety of living cells through lectures, demonstrations, and extensive hands-on laboratory exercises. Director: Robert B. Silver, Cornell University, Application Deadline: March 22, 1993. For admission application and infor-mation contact: Dorianne Chrysler, Admissions Coor-dinator, Marine Biological Laboratory, Woods Hole, MA 02543 (Telephone: 508 548-3705) Extension 401.

Analytical and Quantitative Light Microscopy in Biology, Medicine, and Materials Science. May 13–21, 1993. This course, designed for profes-

sional researchers, advanced graduate students and industrial scientists and engineers, provides an in-depth exam-ination of the theory of the microscope and application of video for exploring subtle interactions between light waves and the specimen. Limited to 22 students. Direc-tors: Greenfield Sluder and David Wolf, Worcester Foundation for Experimental Biology. Application Deadline: March 15, 1993. For admission application and information contact: Dorianne Chrysler, Admissions Coordinator, Marine Biological Laboratory, Woods Hole, MA 02543, Telephone: (508 548-3705) Extension 401.

#### **ANNOUNCEMENTS**

#### The University of Texas Southwestern Medical Center at Dallas PROGRAM LEADER IN DEVELOPMENTAL BIOLOGY

Substantial resources are available to create and sustain a major program in fundamental developmental biology, which will occupy an entire floor of a brand new research building. We seek a dynamic leader who can build an exciting group focused on the broad area of organismal development. Equal Opportunity Employer. Letters of inquiry and curriculum vitae should be addressed to:

Search Committee Department of Molecular Genetics University of Texas Southwestern Medical Center 5323 Harry Hines Boulevard Dallas, TX 75235 USA

#### **ANNOUNCEMENTS**

PROPOSALS SOUGHT FOR IN VITRO SCREENING OF VAGINAL VIRUCIDES. The Contraceptive Research and Development (CONRAD) Program is seeking proposals to evaluate the anti-HIV activ-GOM AD Secting proposals to evaluate the anti-fit vacuu-ity of spermicidal and other compounds supplied by CONRAD. Application deadline is February 1, 1993. For information, contact: Lee E. Claypool, Ph.D., CONRAD Program, 1611 North Kent Street, Suite 806-A, Arlington, VA 22209, Telephone: (703) 524-4744.

NASA PLANETARY BIOLOGY INTERNSHIPS. The Marine Biological Laboratory, Woods Hole, Massachusetts, invites applications from graduate students and chusetts, invites applications from graduate students and seniors accepted to graduate programs for awards of \$2200 plus travel to participate in research at NASA centers and collaborating institutions for approximately 8 weeks. Typical intern programs include: global ecology, remote sensing, microbial ecology, biomineralization, and origin and early evolution of life. Application deadline: 1 March 1993. For information/applications, contact: Lor-raine Olendzenski, Planetary Biology Internship, De-partment of Biology, University of Massachusetts, Am-herst, MA 01003. email: PBI@ botany.umass.edu. An Enaul Oneactuain/Affirmatiue Action Institution Equal Opportunity/Affirmative Action Institution.

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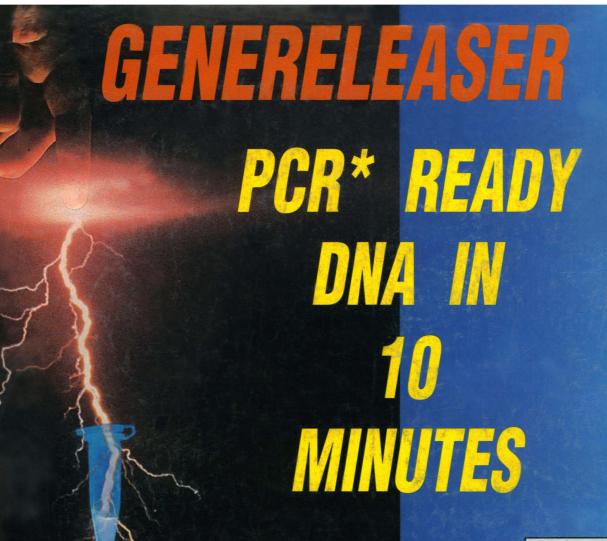
Back Row L to R: Randy, Bob, Abdul, Jonathan, Rob, Kelly, Steve, Sherry, Markus Middle Row L to R: Kimberly, Cindy, Cindi, Carol, Debra, Lisa, Bobby, Jeff, Jay, Susan Front Row L to R: Georgette, Kay, Mei, Kel, Amanda, Jim, Jessy, Kim, Sandy

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