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Frontiers in the Chemical Sciences
Selected and with an introduction by
William Spindel and Robert M. Simon, National Research Council

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POSITIONS WANTED


Immunologist, Geneticiat, Ph.D. (1984). Academic research training in transplantation immunogenetics. Postdoctoral experiences in molecular biology, pathology, and oncology. Broad range of skills including flow cytometry, cell culture, immunocytochemistry (EIA, RIA, immunochemistry), anti-bodies, nucleic acid analysis, DNA analyses, and PCR. Seeking challenging research position in clinical, academic, or basic science setting. Box 169, SCIENCE.

POSITIONS OPEN

AQUATIC ECLOGIST
ARIZONA STATE UNIVERSITY

The Department of Zoology at Arizona State University invites applications for a tenure-track position in aquatic ecology with a focus on ichthyology. The successful candidate will be expected to excel in research and teaching. Projected starting date is 1 August 1989. Applicants should submit vita, statement of teaching and research interests, a list of publications, three letters of recommendation, and three reprints to: Dr. J. K. B. Short, Chair, Department of Zoology, Arizona State University, Tempe, AZ 85287. Applications will be considered until the position is filled.

ASSISTANT PROFESSOR
BEHAVIORAL NEUROSCIENCE

The Department of Behavioral Neuroscience at the University of Pittsburgh seeks applicants for a tenure-track position which could begin in the fall 1989. Applicants should have a strong research background in molecular neuroscience, including experience in in vitro systems, and be able to communicate effectively in written and oral English. Applicants should submit a detailed curriculum vitae, transcript(s), and names of three references to: James M. Nemeroff, Chair, Department of Neurological Sciences, University of Pittsburgh, Pittsburgh, PA 15260.

RESEARCH INSTITUTE OF SCRIPPS CLINIC
AUTOIMMUNE DISEASE CENTER

Position of ASSISTANT MEMBER (assistant professor) or higher, depending on qualifications, available to molecular or cell biologist interested in mechanisms of autoimmunity and in using defined autoantigens to define host-maintain pathogenesis in vivo. Some curriculum vitae and bibliography to: E. M. Tan, Autoimmune Disease Center, Scrpps Clinic and Research Foundation, 10666 North Torrey Pines Road, La Jolla, CA 92037.

ASSISTANT PROFESSIONAL SCIENTIST
PLANT PATHOLOGIST/ECOLOGIST

The Section of Botany and Plant Pathology, Illinois Natural History Survey, located on the University of Illinois campus at Urbana-Champaign, invites applications for a full-time professional research position focusing on plant pathogens/diseases in shaping the genetic structure of, and ecological interactions within, native plant populations. A Ph.D. degree with a research specialization in plant pathology or ecology, is required, for postdoctoral experience is preferred. The successful candidate will be expected to develop a vigorous, innovative, and independent research program which examines the roles of plant pathogens in natural populations and communities and in the context of diversity theory, maintenance of polymorphic species, and the occurrence of co-evolutionary interactions, eradication of exotic species by biological means, or environmental stress. Opportunities to teach and advise graduate students are available by affiliation with an academic department at the University of Illinois. Salary will be commensurate with qualifications and experience; starting date is 1 June 1989.

New York University Medical Center Department of Biochemistry seeks to fill a tenure-track position in one of the areas of molecular biology, developmental biology, or molecular genetics at the level of ASSISTANT PROFESSOR. Abilities of the successful candidate must be more important than his or her area of research. Candidate should hold a Ph.D. or M.D. degree, have at least 2 years of postdoctoral research experience, and be ready to establish an independent academic program. Applicant should submit curriculum vitae, bibliography, letters of reference from three persons familiar with their research and teaching abilities, and a summary of present and future research interests to: Faculty Search Committee, Department of Biochemistry, New York University Medical Center, 520 First Avenue, New York, NY 10016. An Equal Opportunity Employer M/F.
POSITIONS OPEN

ASSISTANT PROFESSOR
DEPARTMENT OF ELECTRONICS AND
INSTRUMENTATION
UNIVERSITY OF ARKANSAS
AT LITTLE ROCK (UALR)

Applications are invited for the position of assistant professor (tenure-track) in the Department of Electronics and Instrumentation at the University of Arkansas at Little Rock (UALR). The position is available immediately. The responsibilities of the successful candidate will include teaching courses in electronics, instrument technology, and related courses; developing and maintaining active research programs; supervising graduate students; and participating in service activities. A Ph.D. in electrical engineering or closely related area is required. The successful candidate will possess strong teaching and research abilities, a commitment to diversity and inclusion, and a proven record of securing extramural funding. Applications should include a letter of interest, curriculum vitae, statement of research and teaching interests, and three letters of recommendation. Applications should be submitted to:

Dr. Lavada E. Williams
Chair, Department of Electronics and Instrumentation
University of Arkansas at Little Rock
4200 East Markham Street
Little Rock, AR 72204

Closing date: December 31, 1989

ASSISTANT PROFESSOR
DEPARTMENT OF MICROBIOLOGY
THE UNIVERSITY OF TENNESSEE
KNOXVILLE, TENNESSEE

Qualifications: Doctoral degree and at least 2 years of postdoctoral experience in microbiology or closely allied biological science. Demonstrated research productivity in molecular biology and excellence in teaching. Responsibilities: Graduate and undergraduate teaching in microbiology/molecular biology, establishment of a productive independent research program, and academic research normally associated with a tenure-track faculty position.

Starting date: August 1989.

Applications are invited from individuals of interest accompanied by curriculum vitae, a description of the applicant's research program and career objectives, and the names, addresses, and telephone numbers of three individuals who can evaluate the applicant's qualifications for the position. Applicants from women and minorities are especially invited. All material should be sent to: Dr. Stuart Riggio, Chairman, Search Committee, Department of Microbiology, University of Tennessee, Knoxville, TN 37996-0645. Applications should be received by January 1989. The University of Tennessee is Equal Employment Opportunity/Affirmative Action/Title IX/Section 504 employer.

ASSISTANT PROFESSOR—BIOLOGY

The joint Biology Department of the College of St. Benedict and St. John's University seeks to fill a tenure-track position beginning fall term 1989. The successful candidate will be responsible for a section of the introductory course for biology majors and microbiology for nursing students. A Ph.D. is required. A strong commitment to undergraduate liberal arts education and expertise in cell biology or molecular biology is preferred. Send curriculum vitae, three letters of recommendation, and transcripts to: Dr. Kathleen Roughan, Dean of Admissions, St. John's University, Collegeville, MN 56321.

Applications received after December 1989 cannot be guaranteed consideration. Women and minority applicants are encouraged to apply.

ASSISTANT PROFESSOR OF PLANT MOLECULAR BIOLOGY

Applications are invited for a tenure-track faculty position at the assistant professor level in the Department of Plant and Microbial Biology. Candi-

dates should be interested in utilizing molecular tech-


tiques for improving disease resistance and other agro-

cultural traits. The successful candidate should be

expected to work cooperatively with ongoing research programs in maize breeding, pathology, tissue culture, and soil microbiology. Opportunities for interaction with other molecular biologists within the College would be encouraged. Teaching responsibilities include a grad-

uate level course consistent with the individual's back-

ground and experience. A Ph.D. and postdoctoral experience in plant molecular biology is required. Send a description of research interests and plans, curriculum vitae, official transcripts, and three letters of recommendation by January 31, 1989 to:

Dr. James A. Hawk
Department of Plant and Microbial Biology
Wake Forest University
Winston-Salem, NC 27109

ASSISTANT PROFESSOR—PALEOBIOLOGY

Department of 17 with Ph.D. program seeks candidate for position in paleobiology, with particular interests in functional approaches and evolutionary questions, to teach undergraduate and graduate courses and to develop a strong research program. Send curriculum vitae, a statement of research interests, and three letters of recommendation by 1 January 1989 to: Dr. Nancy Danock, Chair, Department of Biology, Wake Forest University, Winston-Salem, NC 27109.

ASSISTANT PROFESSOR OF BIOCHEMISTRY

Two tenure-track positions are available in the Department of Biochemistry, North Dakota State University. Ph.D. in biochemistry/chemistry and postdoctoral experience required. Ability to communicate clearly is essential. Candidates with research interests in physical biochemistry, protein/membrane structure, enzymology, or oxidative stress are encouraged to apply. Successful candidates are expected to develop a strong independent research program with potential for grant support, graduate, and undergraduate students. Send curriculum vitae, transcripts, a brief description of current and future research interests, and three letters of reference to: Dr. Arnold E. Olson, Search Committee, Department of Biochemistry, North Dakota State University, Fargo, ND 58108. Available 1 July 1989; closing date 1 February 1989. An Equal Opportunity/Affirmative Action employer.

THE MEDICAL COLLEGE OF GEORGIA
ASSISTANT PROFESSOR

PHARMACOLOGY AND TOXICOLOGY

A tenure-track faculty position is available in the Department of Pharmacology and Toxicology at the Medical College of Georgia. The College is seeking a candidate with research interests in the area of cardio/pharmacology. The candidate should have a Ph.D. or M.D., significant postdoctoral research accomplishments, and the ability to respond to new challenges. Current strengths of our department are in the neuroscience and cardiovascular areas. Appointees are expected to establish a strong, independent research program and participate in the education of our medical and graduate students. Please send curriculum vitae, bibliography, summary of professional goals, and names of three references to: Dr. R. W. Caldwell, Department of Pharmacology and Toxicology, Medical College of Georgia, Augusta, GA 30912.

The Medical College of Georgia is an Affirmative Action/Equal Opportunity Employer.

Western Illinois University Department of Chemistry invites applications for tenure-track ASSISTANT PROFESSORS in BIOCHEMISTRY and INORGANIC CHEMISTRY. Applicants should have a Ph.D. and must have had postdoctoral experience required. Preference is given to ACS-accredited institutions. A strong commitment to teaching and research at the undergraduate and M.S. levels is expected, as is development of an externally funded research program. The filling of these positions is contingent upon funding. Submit a letter of interest and proposed research program before 5 January 1989 to: Search Committee, Department of Chemistry, Western Illinois University, Macomb, IL 61455.

Western Illinois University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSORS—BIOCHEMISTRY—ECOLOGY—PHYSIOLOGY

Several tenure-track positions (research and teaching) are anticipated in an expanding department for fall 1989. Research areas of special interest include: biochemistry, protein-nucleic acid interactions, biotechnology, environmental biology, aquatic ecology, and physiology. The successful candidate will be expected to work collaboratively with ongoing research programs in aquatic biology, physiology, tissue culture, and soil microbiology. Opportunities for interaction with other molecular biologists within the College would be encouraged. Teaching responsibilities include a graduate level course consistent with the individual's background and experience. A Ph.D. and postdoctoral experience in plant molecular biology is required. Send a description of research interests and plans, curriculum vitae, official transcripts, and three letters of recommendation by January 31, 1989 to:

Dr. James E. Magee, Head, Department of Biosciences
Wake Forest University
Winston-Salem, NC 27109

Women and minorities are strongly encouraged to apply. Drexel University is an Equal Opportunity/Affirmative Action Employer.

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SCIENCE, VOL. 242
BASIC SCIENCE RESEARCH TRAINING
FOR PHYSICIAN ANESTHETISTS

Applications are invited from physicians, who have completed the clinical training requirements of the American Board of Anesthesiology, for two to three year research fellowships in the laboratories of Harvard University, Massachusetts Institute of Technology, or Massachusetts General Hospital.

The object is to develop broadly educated scholars who have the inclination, training, and experience to follow a career in laboratory research on problems of importance to anesthesia and the basic sciences to which it rests.

Candidates must show the utmost promise for a future career in fundamental research. Two appointments will be made annually under US PHS National Research Service Award for advanced training in physiology, biochemistry, pharmacology, biophysics, biomedical engineering, endocrinology, or metabolism.

Interested persons should apply enclosing current curriculum vitae to Dr. Richard J. Kitz, Department of Anesthesia, Massachusetts General Hospital, Boston, Massachusetts 02114.

REGULATORY AFFAIRS SCIENTIST

The Procter & Gamble Company and its Richardson-Vicks and Norwich Eaton Divisions have career opportunities for individuals interested in regulatory affairs positions. Successful candidates will have experience in regulatory policy and drug approval regulations. A doctoral level degree or equivalent training in biological sciences is preferred. These regulatory scientists will be integral members of drug development teams and manage the submission and approval issues with regulatory authorities in the United States and abroad.

For consideration, send your resume to:

Dr. Robert A. Libby, Director
Professional and Regulatory Affairs Division
Norwich Eaton Pharmaceuticals, Inc.
P.O. Box 191 Norwich, New York 13815

Procter & Gamble is an Equal Opportunity Employer, M/F
ASSISTANT PROFESSOR—ZOOLOGY

The Department of Biology, University of California, Riverside, invites applications for a tenure-track position at the assistant professor level. The appointment will be effective 1 July 1989, with duties commencing in September. Minimum qualifications include postdoctoral training, demonstrated excellence in research, and a commitment and demonstrated ability to teach. Acceptable areas of research include behavior, physiology, and population biology of animals in their natural environment. Teaching duties are graduate and undergraduate courses in their specialty and may include general biology, vertebrate anatomy, and/or field biology. To apply, send curriculum vitae, statement of research and teaching interests, and copies of representative publications. Also arrange to have sent three to five letters of recommendation, which speak to research and teaching, by 15 January 1989 to: Zoology Search Committee, Department of Biology, University of California, Riverside, CA 92521. The University of California is an Equal Opportunity/Affirmative Action Employer. Men and women are encouraged to apply.

ASSISTANT PROFESSORS OF BIOLOGICAL SCIENCES

Applications are invited for three tenure-track faculty positions. Successful candidates will be expected to establish vigorous, independent research programs, and to reinforce our commitment to research, graduate training, and undergraduate instruction. Postdoctoral experience is required. Competitive salaries as well as attractive facilities and start-up funds are available. Teaching responsibilities will include introductory course work in biology for undergraduates and graduate-level course work in the area of expertise. To join established research clusters of interactive faculty members, we are searching for the following:

A BOTANIST, with research focus in ecology and/or evolution. Qualifications include a Ph.D. in plant biology with emphasis on population genetics and/or seed ecology.

A DEVELOPMENTAL NEUROBIOLOGIST, with research emphasis at the cellular level. Vertebrate systems preferred.

A MOLECULAR CELL BIOLOGIST, using a microbial research system (viruses, bacteria, lower eukaryotes).

Send curriculum vitae, statement of research interests, and names of at least three references by 15 December 1988 to:

Faculty Search Committees
T. H. Morgan School of Biological Sciences
University of Kentucky
Lexington, KY 40506-0225

An Equal Opportunity/Affirmative Action Employer

ASSISTANT SCIENTIFIC DIRECTOR

Immunodiagnostics, Inc., is seeking a Ph.D. bioorganic chemist and a Ph.D. molecular biologist, each with at least 2 years of postdoctoral experience. Prefer individuals with peptide synthesis/characterization or DNA sequencing/PCR/probe experience, at least ten publications and interest/experience in development of diagnostic tests. Send curriculum vitae and three references to: Mark Buchanan, Ph.D., President, Immunodiagnostics, Inc., 562 1st Avenue South, Seattle, WA 98104. Applications deadline: 2 January 1989. An Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR. We invite applications for a tenure-track position available immediately. We seek individuals with a Ph.D. and at least 3 years of postdoctoral training to join a growing group of investigators in the areas of extraocular muscles and chondrocyte metabolism, and animal models of arthritis. For full consideration, applicants should submit curriculum vitae, a brief description of current research interests, and three letters of reference to: Roland W. Moskowits, M.D., Director, Rheumatic Disease Unit, Department of Medicine, University Hospitals, Cleveland, OH 44106. Case Western Reserve University is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT ASSOCIATE PROFESSOR: MOLECULAR BIOLOGY

The Department of Pharmacology at SUNY Health Science Center at Syracuse invites applications for a tenure-track position available from July 1989. Candidates must have strong molecular biological training and demonstrate research potential in the areas of molecular biology, cell biology, developmental biology, or molecular pharmacology. The successful candidate will be expected to establish a research program in an area of his/her choosing. Applicants should send a brief description of research interests, curriculum vitae, and three letters of reference by 1 January 1989 to: Search Committee on Faculty Appointments, SUNY Health Science Center at Syracuse, 756 Irving Avenue, Syracuse, NY 13210.

An Equal Opportunity/Affirmative Action Employer.

ASSOCIATE OR ASSOCIATE PROFESSOR.

We invite applications for a tenure-track position available immediately. We seek an individual with an M.D. or M.D./Ph.D. with postdoctoral training in rheumatology and either immunology and/or molecular biology with a demonstrated research program in normal animal or human immunology and/or autoimmune diseases. For full consideration, applicants should submit curriculum vitae, a brief statement of research interests, and three letters of reference to: Roland W. Moskowits, M.D., Director, Rheumatic Disease Unit, Department of Medicine, Cleveland Clinic Foundation, 11100 Euclid Avenue, Cleveland, OH 44106. Case Western Reserve University is an Affirmative Action/Equal Opportunity Employer.

ASSOCIATE DEAN FOR ACADOMIC AFFAIRS—The University of Medicine and Dentistry of New Jersey is seeking a dynamic individual to serve as the key person in the administration for the provision of excellence in undergraduate, graduate, and continuing medical education. Salary: $30,000 per year. Send curriculum vitae and three additional letters of reference to: John W. Vonnegut, Jr., Ph.D., University of Medicine and Dentistry of New Jersey, P.O. Box 325, Springfield, N.J. 07081-0325.

ATOMIC PHYSICIST (RESEARCH ASSOCIATE): The Institute for Theoretical Physics of the State University of New York at Stony Brook seeks a competent atomic physicist to work in the atomic physics group. Salary: $25,000 per year. Send curriculum vitae and three additional letters of reference to: Dr. Y. B. Zeldovich, Institute for Theoretical Physics, SUNY at Stony Brook, Stony Brook, N.Y. 11790. The University of California is an Equal Opportunity/Affirmative Action Employer. M/F/H/V.

ATMOSPHERIC SCIENTIST (RESEARCH ASSOCIATE): The Weather Research Program of the University of California, Berkeley, seeks a scientist to work in atmospheric physics and chemistry. Responsibilities involves modeling of atmospheric processes in the troposphere and stratosphere. Salary: $25,000 per year. Send curriculum vitae and three additional letters of reference to: Dr. J. B. Landsea, University of California, Berkeley, CA 94720. The University of California is an Equal Opportunity/Affirmative Action Employer. M/F/H/V.

BIOCHEMISTRY—BIOCHEMISTRY FACULTY POSITION, California State University, Sacramento (CSUS).

Applications are invited for a tenure-track position requiring a Ph.D. in biochemistry by 1 September 1989 and an undergraduate degree in chemistry. Position involves teaching both lower division chemistry and general biochemistry, and developing a vigorous research program in biochemistry that involves both undergraduate and master's students. Preference given to candidates with a background in biochemistry and experience teaching at the undergraduate level. Applications including curriculum vitae, three letters of reference attesting to teaching and research abilities, publications, and a brief statement of current research interests should be sent to: Professor James C. Hill, Chair, Department of Chemistry, CSUS, 6000 J Street, Sacramento, CA 95819, by 15 January 1989. CSUS is an Affirmative Action/Equal Opportunity Employer.

BIOCHEMISTS GS12 and GS13 positions open U.S. Army Institute of Dental Research, Washington, D.C. Individual needed to establish and isolate bioactive bone factors from bone, prepare bone implants for experimental animal use, and characterize and analyze bone factors. Individual should have some background in protein and/or polymer chemistry and biomedical engineering, and a Ph.D. in biochemistry or related field. Positions require Ph.D. in biochemistry or related science. GS13 position requires 3 to 5 years of postdoctoral experience. Contact: Dr. Jeffrey Hollinger at 202-567-3764.
BIOCHEMISTRY AND MICROBIOLOGY

Two ASSISTANT PROFESSOR (tenure-track) positions anticipated, August 1989, in Department of Biological Sciences, University of New Orleans. Postdoctorate required. Biochemist expected to conduct independent research in comparative or adaptive biochemistry; teaching includes a basic course in biochemistry. Microbiologist expected to apply modern molecular techniques to microbial systems; teaching includes a basic course in microbiology. Applicants should send resume and statements of research goals and have three letters of reference sent to: Dr. C. R. Welch, Department of Biological Sciences, University of New Orleans, New Orleans, LA 70148. Deadline: 10 January 1989. An Affirmative Action(Equal Opportunity) Employer.

BIOCHEMISTRY, SENIOR FACULTY POSITION. The Chemistry Department, Wayne State University, is seeking an outstanding individual whose research interests are in a contemporary biochemical area to fill a tenure full professor position. A candidate should have a strong record of attracting extramural funding, an excellent publication record and considerable stature in the field. An attractive, competitive package including excellent research and office space, and research support will be offered the successful candidate. Women and members of minority groups are encouraged to apply. The Department is housed in a modern research building and is very well equipped including core facilities for oligonucleotide synthesis and automated DNA sequencing, fermentation, high field NMR, mass spectrometry, molecular modeling, and X-ray crystallography. Collaborative interactions with the adjacent School of Medicine faculty and the Detroit Medical Center are facile and convenient as are interactions with the Center for Molecular Biology, Center for Chemical Toxicology and the Comprehensive Cancer Center. Send curriculum vitae and other pertinent information to: Dr. Richard L. Listvedt, Chairman, Department of Chemistry, Wayne State University, Detroit, MI 48202. Wayne State University is an Equal Opportunity/Affirmative Action Employer.

BIOLOGY, ASSISTANT PROFESSOR/ASSOCIATE PROFESSOR. Tenure-track to begin August 1989, in developmental genetics, neurobiology and some introductory level biology. Research to complement teaching duties. Preference given to applicants with teaching experience. Ph.D. required; salary competitive. Opportunities for collaborative research with nearby universities and laboratories. Send request for application with detailed curriculum vitae and statement of career goals to: Dr. Dorothy F. Chappell, Chair, Department of Biology, Wheaton College, Wheaton, IL 60187. Closing date for application, December 1988.

HEALTH PROFESSIONS COORDINATOR/COMPUTER ANATOMIST. Tenure-track to begin August 1989, will coordinate health and allied health professions advising, communication, and other affairs; teaching load including comparative anatomy. Preference will be given to comparative anatomist with humananatomy training and histology. Send request for application with detailed curriculum vitae and statement of career goals to: Dr. David Bruce, Department of Biology, Wheaton College, Wheaton, IL 60187. Closing date for applications, December 1988. Wheaton is a college in the Evangelical tradition, located in the western suburbs of Chicago, with a biology department of seven members. It complies with federal guidelines for nondiscrimination.

BIOLOGY (BACTERIOLOGY/MICROBIOLOGY): Midwestern State University, Wichita Falls, Texas. ASSISTANT PROFESSOR, tenur-track position. Ph.D. required, beginning fall 1989. Teaching responsibilities include: introductory courses in biology, microbiology, and immunology, and undergraduate and graduate courses in bacteriology. Development of a research program is expected. The successful candidate will be responsible for supervision of thesis research for master's students. A complete resume and three or more letters of recommendation should be received by 10 February 1989. Address inquiries and materials to: Dr. Norma Horn, Chairman, Search Committee, Department of Biology, Midwestern State University, Wichita Falls, TX 76308. An Equal Opportunity/Affirmative Action Employer.

BROOKHAVEN NATIONAL LABORATORY

Biology Department Postdoctoral Research Associate Positions

Applications are invited for postdoctoral positions in the Biology Department of Brookhaven National Laboratory (BNL). Operated by Associated Universities, Inc., under contract with the U.S. Department of Energy, BNL is one of the nation's leading institutions dedicated to scientific research. It is situated in a rural setting in the center of Long Island, 65 miles east of Manhattan. Research in the Biology Department encompasses studies on molecular structure, molecular genetics, DNA damage and repair, and cell biology of plant and animal systems. The Department contains the Scanning Transmission Electron Microscope Facility and also operates stations for molecular structural studies at the National Synchrotron Light Source and the High Flux Beam Reactor.

Positions are available for collaborative studies with the principal investigator(s) named:

- **Human Cell Protein Kinase** that is activated by double-stranded DNA. Involves protein purification, protein sequence analysis, monoclonal antibodies, cDNA cloning and sequencing. (C.W. Anderson)

- **Adenovirus Phosphoproteins** that affect virus host-range. Involves protein purification, protein sequencing and site-directed mutagenesis. (C.W. Anderson)

- **New Anti-Viral Agents.** Involves characterization of an adenovirus serine endoproteinase and development of proteinase-specific inhibitors by site-directed mutagenesis. (C.W. Anderson and W.F. Mangel)

- **Intermediate Protein Assemblies.** Important in the initiation of transcription and replication of eukaryotic promoters and origins. Measurement of molecular mass and geometry in situ using Scanning Transmission Electron Microscopy and molecular biology in collaboration with leading biochemists. (P.V.C. Hough)

- **Bacteriophage T7 Gene Expression**, replication and packaging; interactions of T7 RNA polymerase; rapid genome sequencing. (F.W. Studier and J.J. Dunn)

- **Electron Energy Loss Spectroscopy** of biological specimens at the BNL Scanning Transmission Electron Microscope Facility. Equipment development for new 4K STEM as well as basic research with the present -90° STEM in elemental mapping, radiation damage and image analysis. (J.S. Wall)

- **Far Ultraviolet Circular Dichroism and Fluorescence Spectroscopy** using synchrotron radiation and ultraviolet radiation-induced damage and repair of DNA. (J.C. Sutherland)

Applicants should submit a curriculum vitae, the names of three sources for reference and a letter stating the position desired with details of relevant experience. Appointment is initially for one year, renewable for up to two additional years. Salaries are competitive and commensurate with experience.

Send applications to: H.Z. Kondrutuk, Biology Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, L.I., NY 11973. Inquiries may also be sent through BITNET to: HIND@BNLUXB. Equal Opportunity Employer m/f.

18 NOVEMBER 1988
PROFESSOR AND HEAD OF THE
DEPARTMENT OF AGRONOMY
University of Nebraska-Lincoln

The Department Head is responsible for the administrative leadership of teaching, research, extension, and international programs, and for staff development in the Agronomy Department. Departmental faculty are located on the East Campus in Lincoln and at the District Research and Extension Centers at Clay Center, Concord, North Platte and Scottsbluff.

The Agronomy Department is a part of the Institute of Agriculture and Natural Resources and has programs in crop physiology and production, plant breeding and genetics, soil science, range and forage management, and weed science. The Department offers the B.S., M.S. and Ph.D. degrees. Currently there are 85 undergraduate students and 145 graduate students in the program.

The Department consists of 49 faculty members, with 17 faculty located at the District Research and Extension Centers, 96 full time staff, and 16 affiliate faculty employed by the USDA-ARS. Most faculty have joint appointments between research and either teaching or extension.

Ph.D. in Agronomy/Soil Science or closely related field and meet the qualifications for the rank of Professor in the Department. Experience in teaching, research, extension or related industry experience is required. Experience in administration is preferred, but evidence of administrative ability is required. Demonstrated ability to communicate effectively, to work well with people with varied backgrounds and interests, to organize and coordinate, to provide a strong liaison with the Agronomy profession, and to foster unity of faculty and staff is necessary.

Nominations or applications will be accepted until December 10, 1988 (or until suitable candidates apply thereafter). Applicants are requested to send a letter of application, vitae, and names of three references to:

Dr. Irvin T. Omvedt, Vice Chancellor
Institute of Agriculture and Natural Resources
University of Nebraska-Lincoln
1202 Agricultural Hall
Lincoln, Nebraska 68583-0700
Phone: (402) 472-2871
Affirmative Action/Equal Opportunity Employer

NATIONAL CANCER INSTITUTE
National Institutes of Health, Public Health Service

CANCER PREVENTION FELLOWSHIP PROGRAM (CPFP)
The DIVISION OF CANCER PREVENTION AND CONTROL (DCPC) is accepting applications for the Cancer Prevention Fellowship Program (CPFP). The primary purpose of this program is to attract individuals from a multiplicity of health science disciplines into the field of cancer prevention and control research. The program provides for: participation in the DCPC Cancer Control Academic Program (a formal four-month course in cancer prevention and control); 20 months at NCI working directly with individual preceptors on ongoing cancer prevention and control projects; and, one year at a DCPC-approved cancer control program or State Health Department (may be optional). Funding permitting, up to 10 Fellows will be accepted for up to three years of training, beginning August 27, 1989.

APPLICANTS MUST (BY THE DEADLINE):
1. Possess an M.D. or D.O. degree from a U.S., territorial, or Canadian medical school OR foreign medical graduates must have current ECFMG/FGMECS certification and have completed one year residency in a training program approved by the Accreditation Council for Graduate Medical Education -- OR -- Possess other accredited U.S., territorial, or Canadian doctoral degree (Ph.D., Dr. P.H., D.D.S., etc.) in a discipline related to cancer prevention and control research (biomedical, medical, nutritional, public health or behavioral sciences).
Foreign doctoral graduates must provide documented evidence that the foreign education is comparable to doctoral education received in accredited institutions noted above;
2. Possess U.S. citizenship or be a resident alien eligible for citizenship within four years;
3. Complete and return the application packet by the deadline (including arranging for official academic transcripts and four current, original letters of reference to be sent directly by the academic institutions and referees to the CPFP Coordinator).

For questions concerning the program's scientific or administrative aspects, please contact Dr. Peter Greenwald or Mrs. Barbara Pedding at (301) 496-8940. Application packets may be obtained by sending a POSTCARD with your name and home address to CPFP Coordinator, NIH/NCI/DCPC/CCAB, EXPS Terrace Level, 9000 Rockville Pike, Bethesda, MD 20892. Please do not send any material until after you have read the instructions in the application packet.

DEADLINE FOR RECEIPT OF APPLICATIONS: JANUARY 11, 1989
NIH is an Equal Opportunity Employer

POSTDOCTORAL SCIENTIST
EXPLORATORY RESEARCH

Amgen is a recognized leader in the development of human pharmaceuticals through applied biotechnology. Our Exploratory Research Group has an opening for a Postdoctoral Scientist to investigate proto-oncogene regulation of cellular proliferation. The research program will focus on nuclear proteins that modulate cellular responses to growth factors, lymphokines and colony stimulating factors.

Qualified candidates must have a recent Ph.D. in molecular biology or a related discipline. Experience in one or more of the following areas is desirable: molecular cloning, gene expression, monoclonal antibody development, tumor biology, or immunocytochemistry.

Amgen offers a stimulating and challenging research environment as well as an attractive location (about one hour northwest of Los Angeles). Amgen also provides an excellent compensation and benefits package.

Qualified applicants should send a complete CV, including references, to:

Recruitment, Dept. #354
AMGEN
1900 Oak Terrace Lane
Thousand Oaks
CA 91320

Equal Opportunity Employer

Product Development
Professional Opportunities

PRAXIS BIOLOGICS is aggressively pursuing new challenges and developments in human vaccines. This means exciting career opportunities for achievement-oriented professionals.

Working in this area, you will develop innovative industrial-scale processes to produce potential vaccine products and participate in laboratory, pilot and full-scale production.

Research Scientist—Fermentation
This position requires a Ph.D in Microbiology or Biochemical Engineering and at least three years post-doctoral or related experience in small-scale and pilot plant fermentation.

Research Associate—Chemical Development
This position requires a BS with at least three years of relevant work experience or an MS in Chemistry or a related field. In this position, you will be responsible for developing and performing biochemical reactions, purifications and analyses under GMP's.

Associate Scientist—Purification
This position requires a BS or MS in the Sciences plus four years of related experience or a PhD in Biochemistry or Biochemical Engineering with up to three years post-doctoral or related experience in large-scale protein or carbohydrate purification.

We offer competitive salaries and a complete benefits package. Please send your resume and salary requirements to: PRAXIS BIOLOGICS, Human Resources Department, 4300 Oak Park, Sanford, NC 27330.

PRAXIS BIOLOGICS
An equal opportunity employer, m/f
Dean, College of Engineering
University of California
Riverside

The University of California, Riverside, invites applications and nominations for the Dean of Engineering in the newly created College of Engineering. The Dean will be responsible for: recruiting the initial faculty and working with them to prepare the final undergraduate curricula in chemical engineering (with a biochemical engineering emphasis), electrical engineering, and environmental engineering; assisting in designing the permanent facilities; and preparing for graduate instruction. Other majors will be added later.

The successful candidate should have: (1) a record of achievement appropriate for appointment as full professor in the University of California; (2) a proven record of administrative accomplishment; (3) an educational perspective and philosophy consonant with strong undergraduate education within the context of a research and land grant university, and (4) a demonstrated capacity for innovative leadership and for consultative and collaborative work.

UCR is an equal opportunity/affirmative action employer. Applications from and nominations of qualified women and minority candidates are particularly encouraged. Salary is commensurate with experience.

Consideration of candidates will begin on January 1, with a contemplated appointment date of July 1, or earlier if mutually agreeable. Nominations and applications, including a current professional resume containing the names and addresses of at least 3 referees, should be sent to:

Chair of the Search Committee
for the Dean of Engineering
Office of the Chancellor
University of California
Riverside, CA 92521

Assistant/Associate Investigator
The Lindsley F. Kimball Institute of The New York Blood Center

Position available for Ph.D. in molecular biology/immunology to work with Dr. A.R. Neurath, biochemical virology laboratory.

Applicant must have four or more years of postdoctoral experience, past grant support and publication record demonstrating innovative and independent research accomplishments. Will also be expected to participate in the design of immunogens eliciting B- and T-cell immunity against human viruses, including the human immune deficiency virus. Salary range $32,000-$50,000, depending upon experience and rank of appointment.

Send resume and three letters of recommendation to:
S.L./Human Resources Dept
The New York Blood Center
310 East 67th Street, NY, NY 10021

Staff Scientists
Biochemistry/Process Development

We are seeking Biochemists and Protein Chemists for Staff Scientist positions in our Biochemistry/Process Development Group to work on the purification, characterization and renaturation of recombinant proteins expressed in microbial and mammalian cell hosts.

Candidates should possess a PhD and significant post-doctoral experience. Applicants must demonstrate independent research skill and creativity and have the ability to work well in a collaborative environment.

Immunex Corporation offers excellent opportunity for career development as well as competitive salaries and an excellent benefits package. For consideration, please submit CV, names of three references, and a list of publications to: Immunex Corporation, Human Resources Director, 51 University St., Seattle, WA 98101. Immunex is an equal opportunity employer, m/f/h.
AGNES DUGGAN BROWN CHAIR IN ONCOLOGIC RESEARCH

The James Graham Brown Cancer Center of the University of Louisville is seeking a qualified individual to fill the Agnes Duggan Brown Chair in Oncologic Research. In addition to the generous support provided by the chair, there will be an unusual opportunity to develop a program of substantial dimensions with currently available institutional resources. The individual should hold an M.D. or Ph.D. and have a demonstrated, though not necessarily long record of accomplishment in the research of oncologic interests. Individuals with expertise in the areas of oncogene and/or antioncogene regulation, growth factors, signal transduction, or other areas relating to cellular carcinoma are particularly encouraged to apply. Interested individuals should submit a brief description of their research interest, curriculum vitae, and names of three references on or before 1 January 1989 to: Warren E. Ross, M.D., Director, James Graham Brown Cancer Center, University of Louisville, Louisville, KY 40292.
Department of Biology UCLA
Graduate Training Course
Marine Molecular Biology
Sponsored by the Office of Naval Research

When
April 3–June 10, 1989

Where
Catalina Island Marine Science Center
Two Harbors, Catalina Island, CA 90704
Facilities include lecture hall, wet/dry labs, dormitory, cafeteria, apartments, boats, dive locker. There is immediate access to a rich marine flora and fauna. A fast commercial boat serves the island from San Pedro, CA.

Faculty
Drs. Clifford Brunk
Leonard Muscatine
David Chapman
Elma Gonzalez

Fees
Tuition (UCLA credit 12 units)
$470 (California resident)
$1902 (non-resident)
Room and board at CMSC
$1150

Intended for Beginners
No previous experience in molecular biology is required or expected, but basic background in cell biology and biochemistry is assumed. The course will include lectures, seminars, field and laboratory exercises and independent research projects. Emphasis will be placed on learning advanced techniques. These will include aseptic inoculation, growth rate measurement, nutrient analyses, gas fluxes, chromatography, HPLC, gel electrophoresis, enzyme assays, ultracentrifugation, protein purification, antibody preparation, western blotting, immunostaining, fluorescent antibody detection, isolation of organelles and nucleic acids, restriction endonuclease analysis, Southern blotting and hybridization, nucleotide sequencing, preparation of gene probes and construction of genomic libraries. Techniques will be applied exclusively to marine organisms.

Intensive Hands-on Laboratory Experience
This 10-week course is intended to train marine biologists to become versatile in techniques of cell and molecular biology and biochemistry. Preference will be given to graduate students in marine sciences.

ONR Fellowships
available on a competitive basis.

For Applications & Information Contact:
Department of Biology
UCLA, Los Angeles 90024
(213) 825-3481
Application deadline:
December 16, 1988
Late applications may be reviewed

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RJR-LEON GOLBERG
MEMORIAL FELLOWSHIPS

Postdoctoral Training Opportunities in Integrated Toxicology

Duke University and RJR Tobacco Company now have established training fellowships honoring the eminent toxicologist, the late Dr. Leon Golberg. The program consists of over 50 faculty members representing a wide variety of disciplines including chemistry, ecotoxicology, biochemistry, cell biology, molecular biology, pathology and pharmacology. Emphasis is placed on molecular mechanisms of toxicology, in which this Program is pre-eminent. A competitive stipend will be offered. Fellows will have the opportunity to spend at least 2 years at Duke or RJR, under the guidance of one faculty member and to interact extensively with other faculty members. Interested individuals should send a C.V., a description of their current research project, and the name and addresses of 3 references to:

Doyle G. Graham, M.D., Ph.D.
Integrated Toxicology Program
Box 3712
Duke University Medical Center
Durham, N.C. 27710

Duke University and RJR Tobacco Company are Equal Opportunity Employers
The Department of Psychology of the University of Minnesota is seeking applications for a tenure-track position at the associate professor level. The applicant should have a Ph.D. and demonstrate proficiency in both computational modeling and empirical science. Preference will be given to candidates with a solid background in advanced mathematics and computational science. The position would require active involvement in teaching graduate and undergraduate courses in cognitive science and would be expected upon hiring to initiate an active research program. Preferred specialization is in the area of computational modeling, particularly in the interface between lower and higher level vision but candidates with strong research credentials in other areas of cognitive science are encouraged to apply. This is a faculty position, 100% time appointment during the academic year, with the initial appointment to begin 16 September 1989. Salary and rank will be commensurate with the candidate's qualifications and experience. The University of Minnesota is an Equal Opportunity Employer and Educator and specifically invites and encourages applications from women and members of minority groups. Applications deadline: 1 December 1988.

DIRECTOR. The Thomas Burke Memorial Washington State University, University of Washington, seeks a scholar with a PhD or equivalent, at least three years of museum experience and demonstrated research, teaching, and development skills to serve as director. As the state's oldest and largest natural history institution, the Burke Museum emphasizes a Pacific Rim perspective, contains significant anthropological, geological, and zoological collections; and, maintains active research, exhibition, and educational programs. The museum is an academic unit of the College of Arts and Sciences and the director reports to the Dean. Applicants should have a substantial research and management background and the academic qualifications appropriate for appointment at the rank of professor in a University of Washington department. A letter of interest, curriculum vitae, and at least four references should be sent to: Professor Stephen Porter, Chair of the Burke Museum Director Search Committee, Geological Sciences AF-20, University of Washington, Seattle, WA 98195. Applications received prior to 1 December 1988 and applications submitted prior to 15 December 1988 will receive priority consideration. Washington State University is an Equal Opportunity/Affirmative Action Employer.

HARVARD MEDICAL SCHOOL DIRECTOR OF THE ANIMAL RESOURCE CENTERS The Director of the Animal Resource Centers (ARC) will be responsible for overall management of veterinary care and animal husbandry, long- and short-range facilities and services, purchasing, purchasing management information, personnel and related functions. The Director will become a major participant in the expansion and management of new animal care facilities, and will develop and manage personnel, qualified and experienced in the animal resource field, as well as the animal management environment. A D.V.M/V.D.M. from an AVMA-accredited institution is preferred; a Ph.D. with significant animal care management experience would be an acceptable alternative. Minimum of 3 years of experience managing finance and personnel in a complex operation, preferably one involving animal care is required. Applicant must have demonstrated ability to communicate effectively and in a manner appropriate for communication skills and as an ability to design, develop and implement administrative procedures and laboratory animal management programs and personnel with an animal care/medical environment required. Interested individuals should send resume, curriculum vitae, names, addresses, salary requirements, and a letter outlining their views on management of a central animal resource facility to: Mr. John M. Deleye, Associate Director, Animal Resource Centers, Harvard Medical School, 25 Shattuck Street, Boston, MA 02115. Harvard Medical School is an Affirmative Action/Equal Opportunity Employer. Female and minority candidates are encouraged to apply.

DEAN OF SCIENCE BIOLOGY/SCIENCE EDUCATION DEAN OF SCIENCE: 12-month contract—$60,000 Contact: Dr. Nancy Grayson, Department of English. Department of Biology announces tenure-track, entry level position of ASSOCIATE PROFESSOR, starting fall 1989; Ph.D. required. Successful candidates must have strong commitment to excellence in teaching and maintenance of a productive research program, including supervision of graduate students, in the specified field. Linnology: Modeling and plankton experiments with chemical and physical background preferred. Research program in linnology and water quality, teaching in limnology and introductory biology. Contact: B. G. Whitenside.


Science Education: Minimum of 3 years of secondary school teaching experience required with background in physical and earth sciences. Teaching and general science to future elementary teachers, secondary science methods, laboratory coordination, and supervision of student teachers teaching state certification at secondary level. Contact: M. Lewis.

ASSISTANT PROFESSORS: One or more tenure-track, 1-year positions with possible renewal for 1990 to 1991. Contact: E. L. Schneider.

DIRECTOR, COASTAL FISHERIES INSTITUTE LOUISIANA STATE UNIVERSITY The Coastal Fisheries Institute (CFI) of Louisiana State University's Center for Wetlands Resources is seeking applicants for the position of Director. Established in 1982, the CFI conducts fundamental and applied research relevant to marine fisheries of the northern Gulf of Mexico. Its multidisciplinary staff has grown to nine Ph.D.'s, one J.D., and several research associates. The institute includes fisheries scientists with various interests, a marine economist and a fisheries attorney. Ph.D. in fisheries, marine science, or related field is required. The Director's position will be at the full or associate professor level and tenurable through the Department of Marine Science. Tenure-track appointment is available. Applications and references will be accepted beginning 1 June 1989. The University reserves the right not to proceed with any appointment for financial or programmatic reasons. An Equal Opportunity/Affirmative Action Employer.

THE NATURE CONSERVANCY FOUR KEY POSITIONS DIRECTOR OF BIOLOGICAL MANAGEMENT Responsible for scientific aspects of the world's largest system of privately owned nature preserves. Design, implement, and manage biological monitoring, restoration, and research programs. Location: Arlington, Virginia.

DIRECTOR OF STEWARDSHIP LEVEL 3—Program Director, biological monitoring, research, preserve design, and land management programs in a 12-state region. Help recruit and train land managers. Locations: Minnesota, San Francisco, and Chapel Hill.

Advanced degree, experience in management of rare species. Please send brief resumes and salary information to: Mr. John Maclean, Associate Director, The Nature Conservancy, 1815 North Lynn Street, Arlington, VA 22209. An Equal Opportunity/Affirmative Action Employer.

ENGINEERING OPPORTUNITIES Collier County seeks degreed engineers for positions in their Public Works, Utilities and Community Development Divisions. Join our growing organization and enjoy a sunny, temperate environment in beautiful Naples, Florida. For specific job titles, call our Jobs Available Hotline at 813-774-8112, or for further information, send your résumé with salary requirements by 1 January 1989 to: Collier County Government, Human Resources Department, 3301 East Tamiami Trail, Naples, FL 33995. Equal Opportunity Employer. Collier County encourages the active preference in employment and is an affirmative action employer.
HHMI-NIH Research Scholars at the National Institutes of Health

The Howard Hughes Medical Institute (HHMI) and the National Institutes of Health are accepting applications for the 1989-1990 class of Research Scholars to begin in the summer of 1989.

- HHMI-NIH Scholars are selected from medical schools, usually after the first two years, for a year of laboratory research at the NIH in Bethesda.
- Scholars must be U.S. citizens or permanent residents attending medical school in the United States or Puerto Rico.
- Scholars are paid as employees of HHMI and housed on the NIH campus.
- Applications must be received by January 15, 1989. Candidates will be notified of results by April 1, 1989.
- Application kits and brochures have been sent to the deans' offices of all medical schools. Additional kits and brochures can be obtained from:

Howard Hughes Medical Institute
1 Cloister Court
Bethesda, Maryland 20814-1460
(301) 951-6710

HHMI is an Equal Opportunity Employer.

Howard Hughes Medical Institute Announces a New Program

Medical Student Research Training Fellowships

The Howard Hughes Medical Institute will award up to 60 fellowships to medical students who wish to spend a year in intensive research during the 1989-90 academic year.

Eligibility:
- Applicants must be attending a U.S. medical school, but there are no citizenship requirements.
- The fellowship research may be undertaken at any academic or research institution in the United States.
- Students enrolled in M.D./Ph.D. programs are not eligible.
- Applicants may not apply simultaneously to the HHMI-NIH Research Scholars Program.

Fellowship Awards:
- $12,300 stipend.
- $7,700 allowance to the fellowship institution for research supplies ($4,000) and institutional expenses ($3,700).

Deadlines:
- January 13, 1989, for completed applications.
- Awards announced by early April 1989.
- Fellowship tenure must begin by October 1989, at the latest.

For information: Medical Student Research Training Fellowships
Call (301) 571-0324 Office of Grants and Special Programs
or write: Howard Hughes Medical Institute
6701 Rockledge Drive
Bethesda, Maryland 20817

The Howard Hughes Medical Institute welcomes all qualified applicants and encourages women and members of minority groups to apply.
ECOLOGY AND EVOLUTION

The University of Iowa's Department of Biology is currently reviewing candidates for a position at the assistant professor level. Our search is expanded to include the PROFESSOR level. We will consider outstanding scholars and leaders engaged in theoretical or experimental analyses of any major problems in ecology or evolution. Applicants should submit curriculum vitae, statement of research interests and should arrange to have 3-4 reference letters sent to: Professor Richard V. Bovy, Jr., Department of Biology, University of Iowa, Iowa City, IA 52242. Telephone: 319-335-1073.

The University of Iowa is an Equal Opportunity/Affirmative Action Employer; we encourage applications from women and minorities.

ENDOCRINOLOGY AND METABOLISM—Two positions (Ph.D. or M.D.) to join a multidisciplinary research group in diabetes and obesity are available immediately. Interest could include in vitro metabolism in human hepatocytes, adipocytes and muscle fibers; insulin signals; insulin receptors structure and function; assessment in vivo insulin action and metabolism in man using isocapnoic, application of molecular genetic techniques to the etiology and pathogenesis of diabetes. Please send curriculum vitae to: Jose F. Caro, M.D., Department of Medicine/Endocrinology, East Carolina University School of Medicine, Greenville, NC 27858. An Equal Opportunity/Affirmative Action Employer. Federal law requires proper documentation of identity and employment eligibility. It is requested this documentation be included with your application.

ENVIRONMENTAL HEALTH

The Program in Social Ecology at the University of California, Irvine, is recruiting for an ASSISTANT PROFESSOR, tenure-track, position in the area of environmental health. Ph.D. in environmental sciences, organic chemistry, molecular genetics, or biochemistry is preferred. Experience in laboratory and field research related to environmental health sciences. Ability to use statistics and environmental testing methodology is desirable. Please send cover letter, curriculum vitae, and names of three references to: Dr. Betty H. Olson, Environmental Health Search Committee, Program in Social Ecology, University of California, Irvine, CA 92717. UC is an Equal Opportunity Employer/Affirmative Action Employer.

EVOLUTIONARY BIOLOGIST: The Department of Biology, University of North Carolina at Chapel Hill, seeks an investigating evolutionary mechanisms at the population level. The appointment to enhance our program in ecology, behavior, evolution, and organismal biology is probably best suited to someone at this rank of assistant or associate professor, although all levels will be considered. Appointment will be made in January 1989 or later at the evidence of the appointee. Applicants should send curriculum vitae, a description of research interests, selected publications and four letters of recommendation by March 1989 to: Evolutionary Biology Search, Department of Biology, University of North Carolina, Chapel Hill, NC 27599-3280. The University of North Carolina is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

The Department of Surgery, University of North Carolina School of Medicine, is seeking a full-time FACULTY MEMBER who has completed his/her general surgery training in general surgery and who has demonstrated ability as a teacher and clinician. Academic rank is dependent upon qualifications of individual. The successful applicant should have completed fellowship training in surgical oncology. He/she should have a special competence in tumor immunology with the ability to carry out independent investigations in this field. Interested applicants should forward their curriculum vitae and bibliography to: George F. Sheldon, M.D., Chairman, Department of Surgery, University of North Carolina, 136 Business-Week Building, Chapel Hill, NC 27599. The University of North Carolina is an Equal Opportunity/Affirmative Action Employer. Minority and female applicants are encouraged to voluntarily identify themselves.

POSITIONS OPEN

Dickinson College. The Environmental Studies Program invites applications for a full-time, tenure-track FACULTY POSITION for the fall semester 1989. We seek a candidate with a background in one or more the natural sciences, interdisciplinary experience and interests, including environmental policy analysis. Applicants should submit curriculum vitae and three letters of reference by 1 February 1989 to: Dr. Candie Wilderman, Coordinator, Environmental Studies Program, Dickinson College, Carlisle, PA 17015. Affirmative Action/Equal Opportunity Employer.

Emory University, Department of Radiology, seeks a Ph.D. or M.D. with either NMR spectroscopy or imaging experience.Send letter of interest in full-time FACULTY POSITION. The candidate must be able to originate fundable research projects using NMR and collaborate with other faculty members (in or out of radiology) on NMR research. Knowledge of spin behavior is essential, and medicine, biology, or biochemistry, analog electronics, and computer science are useful skills. Two 1-mt clinical imaging operating at 0.5 and 1.5 T and a 30-cm 200 MHz instrument, all fully programmable, will be available. The department is part of an 800-bed tertiary care complex giving ample opportunity for collaborations requiring clinical material. Seven Ph.D. scientists in the radiology department are currently involved full-time, in NMR. Qualified candidates please contact:

Dr. Thomas Dixon, Director Fris Philips Magnetic Resonance 1419 Woodruff Memorial Building Emory University Atlanta, GA 30322 Emory University is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION IN BIOPHYSICS AT HAVERFORD COLLEGE

The Department of Physics invites applications for a special assistant or associate professorship in biophysics for a period of up to 4 years. Applicants must have a Ph.D. and be strongly motivated towards creative research and undergraduate teaching. The successful candidate will assist in developing a new interdisciplinary biophysics program. Substantial startup funds for research are available. The position is part of a major program funded by the Howard Hughes Medical Institute to enhance the biological sciences curriculum through interaction between the various science departments.

Haverford is a liberal arts college with an international reputation for fine undergraduate research and instruction in the physical and life sciences. We have active collaborations in the sciences with the University of Pennsylvania, Bryn Mawr College, Swarthmore College, and others. Please send curriculum vitae, list of publications, a statement of research interests, and at least three letters of recommendation by 16 January 1989 to: Professor David Pine, Department of Physics, Haverford College, Haverford, PA 19041. An Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS

DEPARTMENT OF BIOLOGY:
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Candidates are sought for a position in the field of biochemistry.

Candidates should have significant research experience in the area of biochemistry of proteins, enzymes, nucleic acids, or membranes. While a broad latitude in research interests will be considered, we are particularly interested in candidates engaged in studies on chemistry, structure, and mechanism of action of biological molecules.

Equal opportunities are extended to all qualified applicants for employment, admission, and assistance regardless of race, color, religion, national origin, sex, handicap, age, familial status, sexual orientation, veteran status, or marital status, or any other factor prohibited by law.

Application materials should include maintaining an active research program and participating in the teaching program of the department.

Send curriculum vitae and a summary of proposed research, and arrange to have letters from at least three scientists who can provide an evaluation of the candidate's accomplishments and future potential.

Applications should be sent to:

Professor Uttam L. Rajbhandary
Chairman, Biochemistry Search Committee
The Biochemistry Program
Massachusetts Institute of Technology
Cambridge, MA 02139

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITION IN BIOCHEMISTRY/NEUROSCIENCE

Twelve-month, tenure-track appointment. Responsibilities include baccalaureate and graduate student teaching, research and service. Opportunity to interact with bioengineering and conduct research in laboratory equipped for measurement in EMG, touch, motion, and ground reaction; analyses via computer and on-line imaging system. Minimum requirements are 3 years of clinical experience, licensure eligibility in Kentucky, and a Ph.D. Opportunity to work clinically, in Outpatient University Hospital rehabilitation center. Applications will be accepted until position is filled. Send letter of application, curriculum vitae, and names of three referees to:

Dean P. Currier, P.T., Ph.D.
Division of Physical Therapy
Department of Clinical Sciences
University of Kentucky Medical Center
Annex 1, Room 4
Lexington, KY 40536-0079

Equal Opportunity Employer.

FACULTY POSITIONS

DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

The E. A. Doisy Department of Biochemistry and Molecular Biology at St. Louis University intends to make two faculty appointments at the junior or senior level in the following areas: PROTEIN STRUCTURE AND FUNCTION, individuals with research experience and interest in the mechanisms of enzyme catalysis, protein-protein and/or protein-muscle acid recognition, and allosteric effects are encouraged to apply for this position; CELLULAR REGULATION, individuals with research experience and interest in membrane biochemistry and function, biosynthesis of membrane lipids and carbohydrates, organelle biogenesis and transport mechanisms are encouraged to apply for this position.

Applications are invited from those applicants who combine classical biochemistry and modern strategies in an innovative independent research program. Send letter of interest to:

Dr. William S. Sloy, Chairman, Department of Biochemistry and Molecular Biology, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, MO 63104.

St. Louis University is an Equal Opportunity/Affirmative Action Employer.
PhD, BS, MS Research Staff Members

Lawrence Livermore National Laboratory, located in the San Francisco Bay Area, is seeking applicants for ten different positions including postdoctoral appointments, term appointments and career staff in the Biomedical Sciences Division.

All candidates must have a degree (BS, MS or PhD for different positions) preferably in Molecular Biology, Biochemistry, Biophysics, or Genetics. Experience in one or more of the following areas is desirable: nucleic acid chemistry, nucleic acid electrophoresis, in situ hybridization, molecular cloning in cosmids or yeast artificial chromosomes, analytical chemistry, immunochemistry, fluorescent methods for DNA labeling, biochemistry of DNA repair, cytochrome P450 analysis.

Openings are available in:

**Molecular Biology**
A team research effort to order, map and sequence components of the human genome.
- Development and applications of clone fingerprinting/walking strategies, large fragment mapping by pulse-field electrophoresis, or development of vector-host systems to clone large pieces of DNA, or rapid, novel methods of DNA sequencing.
- Molecular analysis of human mutations (either somatic or heritable).
- Genetics, molecular biology and mutagenesis of humans using DNA restriction, phage/cosmid cloning, nucleic acid electrophoresis, in situ DNA hybridization, and enzymatic amplification of DNA.
- Multidisciplinary effort to understand human DNA repair.
- Emphasis is on expression of cloned human repair genes and biochemical analysis of their products.

**Biochemical Toxicology**
Analysis of human metabolism of dietary mutagens and carcinogens.
- Develop immunochmical and analytical chemical methods for detecting urinary metabolites, carcinogen-protein adducts and carcinogen-DNA adducts. Experience with P450 metabolizing enzymes, aromatic amine toxicology, in vitro neoplastic transformation or immunochemical methods is desirable.

**Biophysics**
Large scale efforts to improve in situ hybridization with nucleic acid probes and to classify and purify nucleic acid probes according to size and DNA sequence.
- Emphasis will be on the application of novel biophysical techniques and robotics. A background in biophysics or biomedical engineering and an interest in automation is helpful.

We offer a highly competitive salary and benefit package. Send curriculum vitae to Earl G. Morrell, Personnel Operations Division, Lawrence Livermore National Laboratory, P.O. Box 5510, L-725, Dept. KSCBI802B, Livermore, CA 94550. U.S. Citizenship Required. Equal Opportunity Employer.
**Graduate Program**  
**Cell and Molecular Biology**  
(Multi-Departmental)

- Gene Regulation  
- Molecular Genetics  
- Developmental Biology  
- Oncogenes and Growth Factors  
- Structural Biology  
- Neurobiology  
- Molecular Virology and Immunology

The Graduate School at Baylor College of Medicine has recently created a graduate program in Cell and Molecular Biology stressing basic research in the above areas. Students accepted for studies leading to the Ph.D. degree will receive financial support. For further information contact:

Dr. Savio Woo, Director  
Graduate Program in Cell and Molecular Biology  
Baylor College of Medicine, Room 185A  
One Baylor Plaza  
Houston, Texas 77030  
Phone: (713) 799-6557

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**ALZA is making a difference in the world of medicine...**

You can make a difference at ALZA

**Irritation Research**

Applications are invited for the position of Research Scientist in our Biological Sciences Group. You will initiate and perform research on the problems of tissue irritation (mainly GI and cutaneous); evaluate relevance of current in vitro and in vivo models in use at ALZA; and establish expertise applicable to all new areas of research where irritation is likely to be of concern, including transdermal, electrotransport, peptide delivery and parenteral delivery.

PhD in relevant biological science with post-doctoral experience and proven ability to independently conduct research are required. Applicant must have experience in a research field with relevance to irritation biology, such as the study of microvascular pharmacology or biology. Experience in electrophysiology would be desirable.

To apply, please send your resume to: Darlene Markovich, Director of Employment, ALZA Corporation, 950 Page Mill Road, P.O. Box 10650, Palo Alto, CA 94303-0650. We are an equal opportunity employer.

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**ONCOGEN**

Manager, Protein Purification

Oncogen, a division of Bristol-Myers and a leader in biotechnology, performs research dedicated to pursuing novel approaches to the development of therapeutic products in the area of immunology, infectious diseases and cancer.

We are recruiting for a PhD in Biochemistry with 2-5 years of protein research experience to set up and manage an effort providing pure proteins for clinical trial use. The successful candidate will have responsibility for the development of procedures, equipping the laboratory, directing others in the purification of recombinant proteins produced by mammalian cell culture, development of novel technology for protein purification, investigating formulation and stability of proteins, and analysis of protein structure.

Oncogen offers a stimulating scientific environment and excellent compensation and benefit packages. For consideration, send a curriculum vitae to: J. McGough, Oncogen, 3005 First Avenue, Seattle, WA 98121. EOE/AAP.

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**Postdoctoral Position**

Available to study protein secretion from gram-positive bacteria (lactic streptococci) at the Biotechnology Department of CIBA-GEIGY in Basle, Switzerland.

Applications including curriculum vitae, a description of research, the names and addresses of three references from whom we may request letters of evaluation should be sent under ref. "Science 952" to Dr. W. Reber, CIBA-GEIGY Ltd, Personnel Department, Postfach, CH-4002 Basle.

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**CIBA-GEIGY**
**DIRECTOR**
**CARDIOVASCULAR/PULMONARY RESEARCH INSTITUTE**

Deborah Research Institute has a position available for Ph.D. with broad research experience to serve as Scientific Director of our cardiovascular and pulmonary institute. The successful candidate should have experience with myocardial protection, new perfusion methods, left-ventricular assist devices, laser surgery, heart transplantation research or valve and blood vessel transplantation research.

In addition, the candidate will be able to bring about a balance between basic and clinical research, as well as direct efforts in extramural grant writing, grant distribution and the direction and planning of the scientific activities of our institute.

We adjoin Deborah Heart and Lung Hospital. For confidential consideration, please forward your resume to:

Chairman of the Board

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**DEBORAH RESEARCH INSTITUTE**
Trenton Road
Browns Mills, NJ 08015
Equal Opportunity Employer

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**NATIONAL UNIVERSITY OF SINGAPORE**
**INSTITUTE OF MOLECULAR AND CELL BIOLOGY**

Applications are invited from suitably qualified scientists at the level of principal investigators to join the Institute of Molecular and Cell Biology. The Institute, operational since the end of 1987, consists of the Cell Regulation, the Infectious and Genetic Diseases and the Plant Genetic Engineering Groups. It provides comprehensive support facilities including capital equipment, substantial operating and conference expenses, supporting staff at the pre- and post-doctoral levels and laboratory space ranging from 500 to 1000 square feet.

Applicants should have experience in one of the following fields: yeast genetics, molecular virology, molecular basis of genetic disorders, developmental biology, cellular immunology, biochemical virology, cytokines and immunohormones.

Salaries will be competitive and commensurate with experience, including excellent fringe benefits. Applicants should send their curriculum vitae and addresses of 4 referees to the:

Director
Personnel Department
National University of Singapore
10 Kent Ridge Crescent
Singapore 0511

Enquiries may also be sent through BITNET to:
PERSDEPT @ NUSVM

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**BIOMEDICAL SCIENTIST/CELL BIOLOGIST**

The Research Division of W.R. Grace & Co., a Fortune 100 Company in the specialty chemical and health care arenas, has an excellent opportunity in its Biomedical/Biotechnology Research Program.

As part of a multidisciplinary team, you will conduct research developing new technologies and products relating to mammalian cell culture systems, hybrid artificial organs, hemoperfusion systems, and specialty biochemicals.

This position requires an M.S. or Ph.D. in Cell or Molecular Biology, Pharmacology or Biomedical Sciences with experience in mammalian cell culture and cell modulators.

Grace offers an attractive salary, an excellent benefits program and a rewarding, growth-oriented career. We actively encourage the publication of technical papers. We are located in the picturesque community of Columbia, Maryland, close to both Baltimore, Maryland and Washington, D.C.

Please send your resume in confidence, including salary history to:

Manager, Employment
Department MC
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Columbia, Maryland 21044

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**GRACE**

An international specialty chemical company with selected interest in energy, manufacturing and service businesses.

An Equal Opportunity Employer M/F/H/V
FACULTY POSITION IN PLANT PHYSIOLOGY

The Department of Botany, University of Iowa, invites applications for a tenure-track position in plant physiology effective 1 July 1989. We seek candidates whose research interests emphasize molecular/biochemical approaches to problems in plant physiology. The position is approved at the assistant professor level, but applications from individuals with outstanding research records will be considered. Send a letter of application, curriculum vitae, and three letters of recommendation to Dr. Don S. Graham, Chairman, Department of Botany, University of Iowa, Iowa City, IA 52242.

The University of Iowa is an Equal Opportunity and Affirmative Action Employer. We encourage applications from women and minorities.

FACULTY POSITION, MICROBIAL PHYSIOLOGY

The Department of Botany and Microbiology at the University of Oklahoma invites applications for a tenure-track appointment at the assistant professor level. Applicants should have a strong background in microbial physiology, a Ph.D., and relevant postdoctoral research experience. The successful candidate will be expected to develop an active and competitive research program in microbial physiology and to participate in the undergraduate and graduate teaching programs of the department. Preference will be given to applicants who are able to apply molecular biology to their research endeavors. Initial screening of applicants will begin 10 February 1989 and continue until the position is filled.

Interested applicants should send a letter of application, curriculum vitae, and three letters of recommendation to: Dr. Michael Meransen, Chairman, Department of Botany and Microbiology, University of Oklahoma, Norman, OK 73019.

DEPARTMENT OF BIOLOGY

UNIVERSITY OF VIRGINIA

FACULTY POSITIONS AT the junior or senior level are available in the research group investigating basic mechanisms of biological rhythmicity. We seek applicants with research interests in circadian rhythms, neuroendocrine oscillations, reproductive cycles or other aspects of temporal organization, as well as expertise in a contemporary biological method, such as neurobiology, molecular genetics or cell biology. Successful applicants will combine outstanding research accomplishments or potential with an active interest in the intellectual life of a department devoted to the highest level of undergraduate and graduate education. Please send curriculum vitae, including a description of research plans and three letters of reference to: Dr. Robert J. Gilmer, Chairman, Department of Biology, Gilmer Hall, University of Virginia, Charlottesville, VA 22901. Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS IN PLANT BIOLOGY AND MARINE BIOLOGY

FLORIDA STATE UNIVERSITY

The Department of Biological Science will be expanding faculty strengths in two areas of organellar biology: plant biology and marine biology. Recruitment for an ASSISTANT PROFESSOR in each of these areas will be broadly based. Applicants representing a diverse array of interests and disciplines are encouraged. We especially want faculty who will complement our present strengths in ecology, evolution, and marine/aquatic biology. Applicants with quality teaching and research experience are encouraged to apply. Applicants are also expected to establish productive research programs and to contribute to the professional development of graduate students. Send a letter of application, résumé, statement of research and teaching goals, and names and addresses of three references to Professor Law- rence G. Abele, Chairman, Department of Biological Science, Florida State University, Tallahassee, FL 32306.

Yale University is an Affirmative Action/Equal Opportunity Employer. Applications from women and minorities are encouraged.

FACULTY POSITION IN RADIATION BIOLOGY

AT STANFORD UNIVERSITY

The Division of Radiation Biology of the Department of Radiology, Oncology is seeking an associate professor (research) to complement existing programs in hypoxic cytotoxicity and radiation sensitizers, hyperthermia, cell cycle abnormalities, and angiogenesis and leukemogenesis. Areas of interest of applicant could include oxygen measurement and transport, blood flow regulation, the detection and treatment of wall and cellular aspects of predictive assays. Stanford University is committed to increasing representation of women and members of minority groups in the faculty. Applicants should submit curriculum vitae and names of three references to: Dr. J. Martin Brown, Director, Division of Radiation Biology, Department of Radiation Oncology, Stanford University School of Medicine, Stanford, CA 94305.

IMMUNOLOGIST—VIRIOLOGIST (search re-opened)—The Stephen F. Austin State University Biology Department invites applications for a tenure-track position of assistant professor. A Ph.D. with specialties in immunology and/or virology is required. Duties include teaching immunology, virology and introductory biology; research and publication will be expected. Salary competitive with experience. Duties begin in August and closing date for application is 15 December 1988. Send curriculum vitae including training, experience and research descriptions to: W. V. Robertson, Search Committee Chairman, Box 13003, SFA, Nacogdoches, TX 75962. An Equal Opportunity/Affirmative Action Employer.

JUNIOR FACULTY POSITIONS available in the Pharmacology and Developmental Therapeutics of anti-neoplastic agents targeted for specific human cancer types. Candidates should have the Ph.D. degree within a minimum of 3 years of postdoctoral experience in a related field. The two programs are as follows:

1) Colon Cancer: Biochemistry and Pharmacology of modulation of antimitoblasts with thymidylate synthase as the primary target. Studies will focus on biochemical approaches to modulate reduced folate pools and to optimize drug scheduling for therapeutic gain. Research will also identify factors that influence the regulation and turnover of thymidylate synthase in elucidating the importance of the enzyme as a therapeutic target.

Applicants should have training in biochemistry and/or pharmacology. Drug targeting against differentiation antigens in tumors of skeletal muscle. This will involve the molecular cloning of differentiation antigens together with their identification and characterization of specific, appropriate antigens in vitro and in vivo using antibodies as carriers.

Applicants should be able to provide evidence of a strong record of independent research. Applicants should send curriculum vitae and three references to: Laboratories for Developmental Therapeutics, Department of Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101. Equal Opportunity/Affirmative Action Employer.

Yale University/METAMORPHIC PETROLOGY

The Department of Geology and Geophysics invites applications for a JUNIOR FACULTY position in the topic area of metamorphic petrology. We are particularly interested in field-based studies of regional-scale metamorphic terranes, and research programs in the tectonic evolution of metamorphic belts, fluid and heat flow during metamorphism, physico-chemical and kinetic aspects of metamorphism, regional scale petrologic problems, and the chronology of metamorphic events. The position will be filled immediately. The Department will accept applications in stable isotope geochemistry, diagenesis, reaction kinetics, geochronology, and thermochronology. Applications will be reviewed until the position is filled. Send curriculum vitae, a letter of application, and three references to: Dr. Barry Saltzman, Chair, Search Committee, Department of Geology and Geophysics, Yale University, P.O. Box 6666, New Haven, CT 06520. Completed applications must be received by 1 May 1989. Equal Opportunity/Affirmative Action Employer.

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

**MOLECULAR/CELLULAR BIOLOGIST**

IOWA STATE UNIVERSITY

Iowa State University invites applications at any level for a tenure-track or tenured faculty position. The successful applicant will be expected to lead a vigorous, externally funded research program involving state-of-the-art molecular, cellular and/or genetic approaches to study areas related to endocrinology such as: signal transduction, control of secretion or the regulation of growth and development. This position is part of a multimillion dollar, campus-wide effort to promote excellence in molecular biology and biotechnology. Central nucleic acid, protein, image analysis, fermentation, molecular structure and cell-sorting facilities with the most advanced equipment available have already been established. Salary will be competitive and research start-up funds of up to $150,000 are available. Teaching responsibilities will be modest. A description of research interests, curriculum vitae and at least three references should be sent to: Dr. T. Ingelbritsen, Department of Zoology, Iowa State University, Ames 9A 50011, by 15 January 1989. Women, minorities, and members of other protected groups are strongly encouraged to apply. Iowa State University is an Equal Opportunity/Affirmative Action Employer.

**MOLECULAR GENETICIST**

Fort Lewis College Biology Department—molecular geneticist tenure-track position to begin September 1989. Teaching load will include general biology, composition seminar, cell/molecular biology, molecular genetics. Candidate must be dedicated to liberal arts education. Send résumé, three letters of recommendation, and official transcripts to: Dr. Page Lindsey, Department of Biology, Fort Lewis College, Durango, CO 81301. Screening will begin on 9 January 1989. Fort Lewis College is an Affirmative Action/Equal Opportunity Employer. Women and minorities are urged to apply.

**MOLECULAR IMMUNOLOGIST**

The Rocky Mountain Multiple Sclerosis Center (RMMSC), a private, nonprofit research and comprehensive care facility at Swedish Medical Center in Denver, is recruiting for a Ph.D. scientist to conduct research into the molecular immunology of MS. Competitive salary and benefit package. Submit curriculum vitae to: Ron Murray, M.D., RMMSC, Box 2901, 501 East Hampden Avenue, Englewood, CO 80110.

**MOLECULAR RETROViroLOGIST RESEARCH ASSOCIate** position is available immediately in the Department of Infectious Diseases and Microbiology, at the Graduate School of Public Health, to study the genetic variation, gene regulation and latency of HIV. Candidates must have experience in retrovirus pathogenesis and molecular biology and be capable of independent research. Salary commensurate with experience. Send curriculum vitae and three names of references to: Dr. Pragati Gupta, 426 Parran Hall, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA 15261. The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.

**ORTHOPEDIC BIOMECHANICAL ENGINEER**

WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE

West Virginia University School of Medicine invites applications from biomechanics for a tenured-track faculty position with joint appointments in the Departments of Orthopedic Surgery and Mechanical Engineering. Candidates must hold a Ph.D. in mechanical engineering and have a background in mechanical testing, modeling, and motion analysis. Position involves research and teaching. Salary and rank will be commensurate with experience. Send applications with résumés by 31 December 1988 to: Eric L. Radin, M.D. Professor and Chairman Department of Orthopedic Surgery West Virginia University School of Medicine 3606 HSN, Health Sciences Center Morgantown, WV 26506 West Virginia University is an Equal Employment Opportunity/Affirmative Action Employer.

Diagnostic Products Corporation, a leading independent and well-established biotechnology company in Southern California, is seeking qualified and experienced individuals for the following scientific positions. Salary and benefits are competitive and will be commensurate with experience.

**SCIENTISTS, MOLECULAR BIOLOGY**

Career-oriented candidates with a Ph.D degree and at least 3 years post-doctoral training in molecular biology and immunology are encouraged to apply to this team of scientists that will form the nucleus of the molecular biology department scientific staff. Candidates should have experience with nuclear acid biochemistry, recombinant DNA technology and DNA sequencing as well as tissue culture. This challenging appointment requires good communication skills and aggressive scientific talents. Reference: R-1

**SCIENTISTS, PROTEIN BIOCHEMISTRY**

Candidates with a Ph.D with a post-doctoral training in protein biochemistry are encouraged to apply to this team of scientists that will participate in the isolation and physical characterization of a variety of proteins and/or peptides. A thorough background in peptide synthesis, classical and solid-phase, is essential. Knowledge of carbohydrate and nucleic acid biochemistry is preferred. Also, candidates should have experience with HPLC, FPLC, affinity chromatography and other methods of protein purification. Reference: R-2

**TECHNICAL PRODUCT MANAGER**

Candidate will supervise all technical aspects of several in vitro diagnostic product lines, including introduction of new products, process and product improvements, technical training of distributors and technical interactions of customers. This challenging position will give personal growth within and beyond the laboratory. Candidates with a PhD and up to 2 years of experience or a Masters degree and 4–5 years of experience in Biochemistry, Immunology, or related disciplines should apply. Previous experience with in vitro diagnostics is a definite plus. Reference: T-1

Please send your resume and salary requirements, plus reference to position of interest to:

Diagnostic Products Corporation
5700 West 96th Street
Los Angeles, CA 90045
Attention: Personnel
**Oncology Research**

**Washington DC Area**

Molecular Oncology, Inc. is a young, fast-growing biotech company involved in the transfer of the latest molecular diagnostics to the clinical laboratory. If you're an enthusiastic individual with the demonstrated ability to apply advanced management and research skills to cancer diagnosis, we have a place for you on our team.

**Laboratory Director—Molecular Biology**

Duties include the daily supervision of a staff of investigators examining the correlation of DNA arrangement and protein expression with tumor identification and progression. M.D., Ph.D., or M.S. degree with 2 to 5 years supervisory experience required.

**Laboratory Director—Cytometry**

Responsible for the daily supervision of a staff of investigators applying the latest techniques in flow cytometry and image analysis to problems of protein expression and DNA analysis related to tumor diagnosis and progression. M.D., Ph.D. or M.S. degree with 2 to 5 years supervisory experience required.

Send employment history and c.v. to: Molecular Oncology, Inc. Personnel Manager 19 Firstfield Road Gaithersburg, MD 20878

MOI is an equal opportunity employer.

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**Research Fellow**

A$30,100–A$43,861

**Division of Plant Industry**

**Canberra Australia**

**GENERAL:** The CSIRO Division of Plant Industry undertakes research in plant sciences and rural industries directed towards improving the profitability of agriculture and the management and utilisation of the Australian flora and vegetation. Its plant improvement investigations range from basic molecular biology to applied plant breeding. Over the past 30 years the breeding program on the drought, hardy pasture grass, **Phalaris aquatica**, provided all of Australia’s new cultivars.

**THE JOB:** The appointee will conduct grazing experiments to analyse the effects of seed retention, asynchronous tiller elongation, vernalisation requirement and other factors on the nutritive value and persistence of **P. aquatica** cultivars and breeding lines. The appointee will also study quantitative genetics of key factors to design optimal breeding strategies.

**THE PERSON:** Applicants should have a Ph.D. or equivalent qualifications in a relevant field. A sound knowledge of breeding of herbaceous perennial or annual plants, preferably open-pollinated pasture plants, is required.

**CONDITIONS:** Appointment will be for a term of 3 years with Australian Government Superannuation benefits available.

**MORE INFORMATION:** Prospective applicants are invited to telephone Dr R.N. Oram 61 62 46 5062 for further information. A copy of the detailed duty statement and selection criteria may be obtained by telephoning 61 62 46 5357.

**APPLICATIONS:** Applications should be submitted by 4 weeks after publication, 1968 and quoted reference number N9109. They should be framed against the selection criteria, and state relevant personal particulars, including details of qualifications and experience. Applicants should nominate at least two professional referees and address their applications to:

The Chief
CSIRO Division of Plant Industry
GPO Box 1600
Canberra, ACT 2601
AUSTRALIA

CSIRO is an equal opportunity employer.

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**State University of New York at Buffalo**

**Biological Sciences—Faculty Openings**

Two Assistant Professorships: We anticipate that we will be hiring two faculty for Fall 1989. Those appointed will be individuals whose research program is in the forefront of their field and who will be able to interact with other members of our faculty.

One position in ECOLOGY/EVOLUTIONARY BIOLOGY is open to candidates with all specialties, however we are particularly interested in the area of aquatic and plant population ecology.

The second position will be open to candidates who will be expected to be utilizing modern genetic and molecular approaches to the study of one of the following areas: (a) the immune system at the cellular level, (b) the development of an organism which provides a model system for studies in development, or (c) regulation in an organism to provide a model for studies of regulation at the level of gene transcription.

Successful candidates will be expected to have completed at least two years of post-doctoral experience, demonstrate experience in a productive research program, be able to describe in their application, ongoing research projects, and show promise for establishing a productive independent research program.

Candidates will also be expected to demonstrate an interest in and ability for both undergraduate and graduate teaching. Salary will be nationally competitive; excellent laboratory space and equipment will be available.

To apply, candidates must submit a curriculum vitae, including a statement of research background and teaching experience, and at least three letters of reference, to Dr. Darrell Doyle, Chairman, Department of Biological Sciences, 109 Cooke Hall, State University of New York at Buffalo, Buffalo, NY, 14260. Applications will be received until January 13, 1989, or until the position is filled thereafter.

State University of New York is an Affirmative Action/Equal Opportunity Employer.

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**Pathology**

**Section Chief**

**Diagnostic Molecular Pathology**

Saint Barnabas Medical Center is a 705-bed regional acute care hospital located in suburban NJ. The Department of Pathology performs a variety of diagnostic tests and is among one of the most sophisticated of its kind in the healthcare field to-date. We currently have a position available for a Section Chief of Diagnostic Molecular Pathology to work in this highly specialized and advanced department.

As the Section Chief, under the direction of the Chief of The Diagnostic Molecular Pathology Service, your responsibilities include: establishing recombinant DNA technology, supervising and assisting laboratory personnel in your section, as well as working with other sections in the Department of Pathology. Other duties include: lecturing to students, technologists, and house staff, as well as participating in educational and research projects.

Applicants should be capable of working independently and must have a Doctoral Degree in Molecular Biology, preferably with 3-5 years experience.

We offer a highly competitive salary and a unique array of benefits including: an employer funded tax-sheltered annuity program, complete medical coverage, and a new Kindercare Learning Center! Please submit resume with salary requirement to Dr. J. Manning, (201) 533-5705, Department of Pathology, Saint Barnabas Medical Center, Old Short Hills Road, Livingston, NJ 07039. We are an equal opportunity employer M/F/H/V.

- **Saint Barnabas**
- **Medical Center**

*Real Challenges, Real Rewards*

Old Short Hills Road, Livingston, New Jersey 07039
International Institute of Tropical Agriculture
Ibadan, Nigeria

LEADER, RESOURCE MANAGEMENT UNIT

IITA invites applications for the senior research position of Leader, Resource Management Unit.

IITA is an international agricultural research institute in a world-wide consortium of 13 centers organized by the World Bank, Food and Agriculture Organization and United Nations Development Program. The Institute has outreach programs in many countries of sub-Saharan Africa. IITA scientists from 45 nations work in partnership with national agricultural agencies to increase crop production in tropical Africa, and ultimately to raise the productivity and income of family farmers.

The goal of resource management research at IITA is to develop economically viable farming systems which permit increased and sustainable production by family farmers. Good management practices should enable them to make more effective use of their resources: soil, radiation, vegetation, water, material inputs, labor and other energy sources. The development of farming systems to support the population of Africa in the 21st century is one of the most profound challenges to international agriculture. For this reason, IITA plans to increase the strength of its research effort in this field over the coming years.

The Leader of the Resource Management Unit will direct a multidisciplinary team of soil scientists, agronomists, ecologists, weed scientists, an agroclimatologist, an economist and agricultural engineers in (a) studying the physical, chemical, biological and socio-economic elements of the natural resource base; (b) analyzing the determinants of stability, productivity and degradation; and (c) designing improved resource management systems and in adapting them to the farming systems of the major ecosystems of West and Central Africa.

Candidates should possess a relevant research background (PhD or equivalent degree in an appropriate subject), and have had a minimum of five years of international experience. They should be keen scientists with a vision of how applied research can address practical problems. They must be capable of organizing their team in a coherent program to make their vision a reality.

The salary and benefits are competitive, and include housing, use of a personal car, children’s educational allowances, annual home leave travel, health services and other benefits. The Institute’s headquarters, research facilities, and residential and recreational areas are situated on an attractive 1,000-hectare campus outside of Ibadan.

Applicants for the position of Leader, Resource Management Unit, are invited to send their curriculum vitae, date of availability, and names and addresses of three referees to Dr. Laurence D. Stiefel, Director General, c/o L.W. Lambourn & Co. Ltd., Carolyn House, 26 Dingwall Road, Croydon CR9 3EE, England.

IITA currently also has the following positions open: agricultural economist, plant breeder, Striga biologist, soil chemist, training materials specialist and senior science writer/editor. The full announcements of any of those positions will be sent on request.

August 1988

DIAGNOSTIC PRODUCTS

R & D/Product Support

Amersham Corporation, a respected leader in the diagnostic industry, is expanding its Diagnostic Systems Division at a rapid pace and is seeking a broad range of scientific talent to assume key roles in that expansion. Exciting growth will be occurring in research and development, marketing, product support, and field service over the next several months. Opportunities in product development have created an immediate need for the following individuals possessing Ph.D. degrees in Biochemistry, Immunology or other appropriate fields.

RESEARCH SCIENTIST

Applicants should have a minimum of 5 years industrial experience in the area of immunodiagnostics. Individuals with product development and launch experience on instrumentation-based thyroid, cancer, hormone, or infectious disease products are being sought. Preference will be given to individuals who have worked closely with parallel instrumentation development. Supervisory experience and interpersonal skills required for a team approach are essential.

PRODUCT SUPPORT SCIENTIST

The ideal candidate will possess 3 to 5 years experience in product support or development of diagnostic products specifically thyroid immunoassay products. Individuals with extensive experience in method development, experimental design and problem-solving are sought. Managerial skills would be an asset in the supervision of a product support group.

Amersham Corporation is located in a pleasant suburban area 25 miles northwest of downtown Chicago. We are offering an excellent starting salary, an attractive benefits package, and the opportunity to make a significant contribution to our Diagnostic Systems team. To apply for our immediate openings, or apply for future opportunities in marketing, product support, and field service, please submit your resume in confidence to:

Human Resources Manager
AMERSHAM CORPORATION
2636 S. Clearbrook Drive
Arlington Heights, IL 60005-4692

Equal Opportunity Employer, M/F/V/H

Amersham
SEARCH EXTENDED

MOLECULAR STRUCTURAL BIOLOGY

The Department of Cell Biology and Neuroanatomy, in cooperation with the newly established Center for Structural Biology at the University of Minnesota, is extending its search for a structural biologist with expertise in electron microscopy of macromolecules (including proteins, glycoproteins, and nucleic acids) and experience in computer image analysis. Areas of research interest of the successful applicant must complement ongoing programs in the areas of cellular and developmental biology, membrane proteins or extracellular proteins that interact with cells. The appointment may range from ASSISTANT PROFESSOR (TENURED) depending upon qualifications (guidelines for appointment at each level will be sent on request). Applicants must have a relevant graduate degree (either Ph.D. or M.D. or both), or equivalent foreign degree with at least two years of productive postdoctoral experience. Teaching will be in courses taught to medical and dental students by the department. In addition, training of graduate students and teaching in appropriate graduate programs will be required.

Applicants (which should include a letter of intent, curriculum vitae, three letters of recommendation, and a brief statement of research goals) or nominations must be received no later than 1 February 1989, and should be sent to Search Committee, Department of Cell Biology and Neuroanatomy, 4-135 Jackson Hall, 321 Church Street, S.E., Minneapolis, MN 55455.

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

Tenure-track faculty position for NEUROSCIENTIST. Research focus in CNS neural plasticity and at least 2 years of postdoctoral training preferred. Assistant professor rank, but higher level appointment may be considered. Send curriculum vitae with three letters of recommendation, statement of research goals, and no more than three reprints to: L. C. Skene, Chair, Biopsychology Search Committee, Department of Psychology, University of Delaware, Newark, DE 19716, by 31 January 1989. Women and members of minority groups are especially encouraged to apply. Equal Opportunity/Affirmative Action Employer.

PHARMACOLOGIST

The Department of Pharmacology at the University of North Dakota School of Medicine has a tenure-track vacancy to be filled by July 1989 at the associate professor level. Applicants must have a Ph.D. and teaching experience. Preference will be given to those who have demonstrated research productivity in autonomic, cardiovascular, chemotherapeutic, endocrine, or renal pharmacology and a demonstrated extramural research funding record. Excellent laboratory space is available to support the research effort in a developing department. Candidates should submit curriculum vitae, a summary of research plans, and names of three references by 15 January 1989.

Dr. John W. Vennes, Acting Chair, Department of Pharmacology, School of Medicine, University of North Dakota, Grand Forks, ND 58202. An Equal Opportunity Employer.

PHARMACOLOGY

The Department of Pharmacology, Division of Functional Botany of the West Virginia School of Osteopathic Medicine (WSOM), seeks an ASSISTANT OR ASSOCIATE PROFESSOR of pharmacology. Applicants must have a background in general physiology and pharmacology with experience in cardiovascular and renal pharmacology. Significant teaching experience and a demonstrated ability to conduct independent research are also required.

Rank and salary will be commensurate with qualifications. Send current curriculum vitae and three letters of recommendation to Dr. Larry J. Miner, Search Committee, c/o Personnel Office, WSOM, 400 North Lee Street, Lewisburg, WV 24901. The position is available immediately.

WSOM is an Affirmative Action/Equal Opportunity Employer.

PHARMACOLOGIST

We seek to appoint a research assistant professor with interest and experience in parasitic disease(s). Preference will be given to applicants with interest in helminthology, schistosomiasis and possibly filariasis. Available 1 July 1989. Applications should include current curriculum vitae and the names of three references. Application deadline is 1 February 1989. Equal Opportunity/Affirmative Action Employer.

PHYSIOLOGY FACULTY POSITION—The Department of Physiology, Chicago College of Osteopathic Medicine, invites applications for a tenure-track position at the rank of ASSOCIATE PROFESSOR or above. The successful candidate will demonstrate a vigorous, fundable research program, preferably in an area that complements existing programs in cardiovascular, diabetes and vascular smooth muscle research. Highly qualified candidates with research interests in other areas will also be given serious consideration. Two years of postdoctoral experience, and the ability to teach human physiology to medical students are required. Candidates should send their curriculum vitae, reprints of selected articles, a statement of research interests, and the names of three references to: Stephen J. Kopp, Ph.D., Chairman, Department of Physiology, Chicago College of Osteopathic Medicine, 3303 S. Michigan Avenue, Chicago, IL 60616. Afirmative Action Employer.

PLANT CELLULAR/MOLECULAR BIOLOGIST. Applications are invited for a tenure-track position in molecular or cellular biology with experience in plant systems. Initial responsibilities include participation in a core course for majors on genetics and development, developing a general education course in science and technology, and teaching a course in area of specialization. Ph.D. strongly preferred. Send letter of application outlining research and teaching interests, curriculum vitae, and letters from three references before 15 December 1988 to: Dr. Jack Harderode, Department of Biology, Bucknell University, Lewisburg, PA 17837. Telephone: 717-524-1961. Applications from women and members of minority groups are encouraged.

PLANT ECOLOGY AND PLANT PHYSIOLOGY

MIAMI UNIVERSITY

The Miami University Department of Botany invites applications for two tenure-track positions at the assist. professor level for Autumn 1989. One position is for a PHYSIOLOGIST emphasizing plant metabolism. The second position is for a POPULATIO-NAL CHILDREN'S BIOLOGIST. Responsibilities include teaching undergraduate and graduate courses, research and the direction of master's and doctoral students. A Ph.D. in an appropriate discipline is required. Preference will be given to candidates with postdoctoral experience and demonstrated success in both teaching and independent research. Curriculum vitae, a one-page statement of teaching goals, a one-page statement of research objectives, and three letters of recommendation should be received by 6 January 1989. Address materials to: Dr. Jerry W. McClure (Physiologi) or Dr. John L. Yankat (Ecology), Department of Botany, Miami University, Oxford, OH 45065. Afirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOW

A 2-year appointment of postdoctoral fellowship in speech and hearing sciences, School of Medicine, Division of Speech and Hearing Science. Strong research backgrounds in phonological and/or AI-oriented computational methods are desirable. Large amounts of articulation data and machine-readable Wisconsin microfilm facility are available as well as an advanced computational environment including several SUN-4 workstations. Interested individuals are invited to contact: Professors Larry Feth and Osamu Fujimura, Division of Speech and Hearing, The Ohio State University, 154 North Oval Mall, Columbus, OH 43210. Applications should include curriculum vitae as well as names, addresses, and telephone numbers for at least two recommendations, and must be arrive by 9 December 1988. WSU is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL ASSOCIATE IN PLANT/INSECT RELATIONS: Available immediately with 2-year appointment to study effects of biological nitrogen fixation in legumes on herbivorous insects. Requires strong interest and background in physiological responses of plants to environment and insect behavior/nutritional ecology. Applications, including curriculum vitae, statement of research goals, and names of three references should be forwarded to: Dr. Patrick R. Hughes, Boyce Thompson Institute for Plant Research, Cornell University, Ithaca, NY 14853.

POSTDOCTORAL FELLOW: A biochemist with strong background in analytical food chemistry and/or toxicology is required to work on a National Research Council-funded research project focused on "domoic acid" shellfish toxin. Previous experience in related field is desirable. Two-year appointment. Applications should include curriculum vitae, names and addresses of three references, and pertinent publications. Submit to: Dr. M. S. Nijjar, Department of Anatomy and Physiolo-gy, University of Prince Edward Island, Charlottetown, P.E.I., Canada, C1A 4P3.

POSTDOCTORAL FELLOWSHIP

PSYCHONEUROIMMUNOLOGY

The Department of Microbiology and Psychiatry of Boston University School of Medicine are offering a postdoctoral fellowship in the field of psychoneuroimmunology. The position is available 1 January 1989. Training emphasis is on the role of stress on the immune system of small rodents and will include aspects of neuroendocrinology, psychiatry/psy- chology, and immunology. Applicants should provide curriculum vitae and the names of three references. Please reply by 1 December 1988 to: Paul H. Black, M.D., Department of Microbiology, Boston University School of Medicine, Boston, MA 02118. Equal Opportunity/Affirmative Action Employer.

PLANT GROWTH AND DEVELOPMENT

The Division of Sciences at Washington State University is accepting applications for a tenure-track faculty position in MOLECULAR PLANT BIOLOGY. The position requires participation in teaching core curriculum courses in the areas of plant development and structural botany, and appropriate research experience is desirable. The successful candidate will be expected to develop a strong externally funded research program concerned with the regulation of plant development and molecular, biochemical, and physiological level. Preference will be given to candidates employing contemporary methods to study the regulation and control of development with a fundamental background in plant biology is required, and postdoctoral experience is preferred. Applicants should submit curriculum vitae, statement of research and teaching interests, selected reprints, and names of four references to: Dr. Vincent R. Franceschi, Chair, Search Committee, Department of Botany, Washington State University, Pullman, WA 99164-4230. Application deadline is 9 January 1989. WSU is an Equal Opportunity/Affirmative Action Educator and Employer. Protected group members are encouraged to apply.

PLANT SYSTEMATICS

HARVARD UNIVERSITY

DEPARTMENT OF ORGANISMAL AND EVOLUTIONARY BIOLOGY

TWO POSITIONS

FULL PROFESSOR—evolution and phylogeny of vascular plants, and non-tenured professor at the ASST.-PROFESSOR level. Recent or current research in evolutionary systems involving angiosperms or other groups of plants or fungi. Candidates should employ molecular techniques in their research.

Applicants should have demonstrated excellence in research and a strong commitment to teaching at the graduate and undergraduate levels. Curriculum vitae, statement of interest and names of three recommenda-tions must be sent to the Search Committee: Plant Systematics Search Committee, Department of Organismal and Evolutionary Biology, 4 Oxford Street, Cambridge, MA 02138. Harvard University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL ASSOCIATE IN PLANT/INSECT RELATIONS: Available immediately with 2- year appointment to study effects of biological nitrogen fixation in legumes on herbivorous insects. Requires strong interest and background in physiological responses of plants to environment and insect behavior/nutritional ecology. Applications, including curriculum vitae, statement of research goals, and names of three references should be forwarded to: Dr. Patrick R. Hughes, Boyce Thompson Institute for Plant Research, Cornell University, Ithaca, NY 14853.

POSTDOCTORAL FELLOW: A biochemist with strong background in analytical food chemistry and/or toxicology is required to work on a National Research Council-funded research project focused on "domoic acid" shellfish toxin. Previous experience in related field is desirable. Two-year appointment. Applications should include curriculum vitae, names and addresses of three references, and pertinent publications. Submit to: Dr. M. S. Nijjar, Department of Anatomy and Physiolo-gy, University of Prince Edward Island, Charlottetown, P.E.I., Canada, C1A 4P3.

POSTDOCTORAL FELLOWSHIP

PSYCHONEUROIMMUNOLOGY

The Department of Microbiology and Psychiatry of Boston University School of Medicine are offering a postdoctoral fellowship in the field of psychoneuroimmunology. The position is available 1 January 1989. Training emphasis is on the role of stress on the immune system of small rodents and will include aspects of neuroendocrinology, psychiatry/psy- chology, and immunology. Applicants should provide curriculum vitae and the names of three references. Please reply by 1 December 1988 to: Paul H. Black, M.D., Department of Microbiology, Boston University School of Medicine, Boston, MA 02118. Equal Opportunity/Affirmative Action Employer.

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Mammalian Cell Expression/Protein Analysis
We are seeking exceptional individuals at the BA, MA and/or Ph.D. level, with skills in Mammalian cell expression and protein analysis, to join a group studying recombinant immunoglobulins intended for therapeutic purposes. The ideal candidate has experience in propagation of transformed cell lines, DNA transfections and/or protein characterization. A background in immunology or rDNA experience is also beneficial, but not a prerequisite for the position.

Immunology
We are currently accepting applications from qualified individuals in the area of Applied Immunochernistry. Ideal candidates will have MS or PhD in Immunology or Biochemistry, and 2-4 years' relevant experience in the purification, characterization, and utilization of monoclonal and polyclonal antibodies. Familiarity with isotopic and enzymatic immunoassay procedures, including chemical modifications to antibodies and/or antigens are essential for the successful candidate. A background in molecular biology, although desirable, is not required.

Analytical Biochemistry
We have an immediate opening for an analytical biochemist in our Carbohydrate Chemistry group. Primary responsibilities will include analysis of the oligosaccharides from glycoproteins by gas and liquid chromatography, maintenance of chromatographic instrumentation, and interpretation of data. The ideal candidate should possess a BS in Chemistry/Biology with one year of laboratory experience and have excellent written and verbal communications skills. Previous experience with GC or LC desirable, though not necessary.

Assay Development
We are expanding our research activities to include a dedicated assay development group to be responsible for performing and developing assays to support our research and clinical development organization in the areas of hematopoietic and other growth factors, fibrinolysis and hemostasis. We are seeking several assay specialists in the following areas to be a part of this start-up group:

Imunoassays Bioassays Enzymatic assays

A Bachelor's or Master's degree, as well as experience in running validated assays for clinical or in vitro diagnostics is desired. In addition, we are seeking a Ph.D. with significant experience in immunoassay development and implementation for protein therapeutics. This individual would be expected to take a lead role in developing immunoassays, providing supervision for the other assay areas within the group, and interacting with scientists and physicians in research and clinical development.

Molecular Biology
DNA Sequencing
An opportunity exists for a Bachelor's or Master's level candidate with 1-2 years of experience in molecular biology. This individual will be responsible for DNA sequencing by molecular biology techniques.

Tissue Growth & Repair
A position is available in our Tissue Growth and Repair laboratory conducting bone growth factor research. This position requires a Bachelor's or Master's and 2-3 years of experience in molecular biology techniques including cDNA library screening, clone characterization and RNA techniques.

Microbial Expression
We are currently seeking a Bachelor's or Master's level scientist to join our Microbiology group. This individual will be involved in expression and analysis of heterologous gene products in microbial systems, principally in E. coli. A background in microbiology is preferred, and familiarity with rDNA techniques is desirable.

Protein Engineering
We seek a highly motivated scientist to contribute to the synthesis of novel recombinant protein. The ideal candidate will be actively involved in DNA mutagenesis, vector construction, and enzymatic assays. This opportunity requires a BS degree in Biology or related life science with a minimum of one year's experience in molecular biology.

Mammalian Cell Culture
An opportunity exists within the Biochemical Engineering group of our Mammalian Cell Culture laboratory for an individual with a Bachelor's or Master's degree in a biological science or an engineering discipline. Experience in cell culture as well as analytical techniques such as gel electrophoresis, Western blot analysis, autoradiography, wet chemistry and enzymatic assays is required. Experience in the operation of bioreactors would be an advantage but is not essential.

We offer a stimulating scientific environment in addition to an excellent salary and a complete benefits package. Qualified applicants should forward their resumes, in confidence, to Sheri Rist, Genetics Institute, 87 Cambridge-Park Drive, Cambridge, MA 02140.

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POSTDOCTORAL FELLOW: Molecular biologist to study proline-stimulated generic transcription in lymphocytes. Experience in cell culture, RIA or ELISA. Western and Northern blots. Opportunity to uncover new insight into cell function related to proliferative diseases. Send with resume and names of three references. Closing date will be 30 December 1988. Réséumé to: Diane H. Russell, Ph.D., Professor and Head, Department of Pharmacology and Therapeutics, University of South Florida, College of Medicine, MDC-9, Tampa, FL 33612. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIP POSITIONS (two) available immediately to study cellular and molecular biology of atherosclerosis and lipid metabolism. Research projects include: regulation of apolipoprotein gene expression; cellular assembly and function of lipoproteins; modeling of intravascular lipoprotein transport; and molecular genetics of human lipoprotein disorders. Background in cell biology and/or biochemistry desirable. Must be citizen or permanent resident. Send résumé and names and addresses of three references to: Trudy M. Forte, Ph.D., Lawrence Berkeley Laboratory, University of California, #1 Cyclotron Road, Berkeley, CA 94720. An Equal Opportunity Employer, M/F/H.

POSTDOCTORAL FELLOWSHIP/RESEARCH ASSOCIATE in studying protein folding and dynamics using site-directed mutagenesis. This 2-year position with optional extension is available immediately. Experience in fluorescence spectroscopy is desirable. This project is a collaboration of Bar-Ilan University and the Weizmann Institute. Send curriculum vitae and names of three references to: Eliezer Haas, Chemistry Physics Department, Weizmann Institute of Science, Rehovot 76100, Israel. Bitten: CFHAAS at WEIZMANN.

POSTDOCTORAL POSITION available immediately to study myelin antigens and characterize immune responses to them in multiple sclerosis. A background in immunology or molecular biology required. Send curriculum vitae and three references to: Jeffrey I. Greenstein, M.D., Department of Neurology, Temple University School of Medicine, 3401 North Broad Street, Philadelphia, PA 19140. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION A postdoctoral position is expected available summer-fall 1989 for an outstanding individual with a strong background in cellular immunology. The individual selected will work with the investigator in determining the regulation specificity of the immune response to vesicular stomatitis virus in mice at the clonal and molecular level. Appointment will be held in the Department of Pathology at Harvard Medical School. Send curriculum vitae, statement of research interests, and names and addresses of three references by 1 March 1989 to: Dr. Carol Reiss, Division of Pediatric Oncology, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION in SURFICIAL BIOLOGY available immediately to study the role of G-proteins and phosphorylation in the regulation of Ca2+-dependent neurotransmitter release. This study is part of a multidisciplinary investigation into the cellular mechanisms and regulation of synaptic transmission using a combination of approaches including molecular biology, patch-clamp recordings, and protein chemistry. Send curriculum vitae and names and addresses of three references to: Dr. F. G. Haydon, Department of Zoology, Iowa State University, Ames, IA 50011.

POSTDOCTORAL POSITION in MARINE SCIENCE Skidaway Institute of Oceanography invites applications for a 2-4 year, postdoctoral position in marine science. The position is open to scientists interested in participating in interdisciplinary oceanographic research. Special consideration will be given those whose research interests involve marine sedimentary geology, sediment transport and boundary-layer processes, or interactions of ocean circulation and biological processes. A letter of application including curriculum vitae, a statement of current and future research interests, and names and addresses of three persons who can be contacted for letters of reference should be sent to: Dr. James Eckman, Skidaway Institute of Oceanography, J. J. Box 13687, Savannah, GA 31416. Telephone: 912-356-2467. The deadline for application is 31 January 1989. Skidaway Institute of Oceanography is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY available immediately to study a cloned DNA repair gene in both Drosophila and humans. Candidate must have experience with standard molecular techniques and will be expected to take an active role in developing and carrying out research in the analysis of the cloned genes. Send curriculum vitae and three letters of reference to: Dr. Mark R. Kelley, Department of Biochemistry, School of Medicine, University of Chicago, Stritch School of Medicine, 2160 South First Avenue, Maywood, IL 60153.

POSTDOCTORAL POSITION IN PALEOBIOLoGY available 1 December 1988 to collaborate in studies on the origin and evolution of major vascular plant families. Experience in morphometric and computer-based modeling techniques. Background in plant sciences and experience with computers desirable. Salary approxi- mately $22,000 per year. Reply with curriculum vitae, statement of research goals/interests, and three letters of reference to: Dr. William Stein, Center for Evolution and Paleobiology, Smithsonian Institution, 15TH-Binghamton, Binghamton, NY 13901. SUNY-Binghamton is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION in CELLULAR TOXICOLOGY available immediately to study thyroid hormone receptor and the role of T3 and T4 in thyroid cancer. Experience in nuclear receptor biochemistry and/or cell biology desired. Send curriculum vitae and three references to: Dr. Edward M. Lieberman, Department of Anatomy, East Carolina University School of Medicine, Greenville, NC 27858-4354. ECU is an Affirmative Action/Equal Opportunity Employer. Federal law requires proper documentation of the right to work at the time of employment. It is requested that this documentation be included in your application.

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY Two positions are available immediately in a molecular biology laboratory for Ph.D.'s in biochemistry. Training and experience in molecular biology required. Send curriculum vitae and names of three references to: Dr. Saleem Khan, Department of Microbiology, University of Pittsburgh School of Medicine, 720 Scaife Hall, Pittsburgh, PA 15261.
POSTDOCTORAL POSITIONS

POSTDOCTORAL POSITIONS
available 1 January 1989 for studies of the expression of carbohydrate antigens in human cancers [ JBC, 262, 11331 and 15449 (1987)] involving glycosyltransferase purification and characterization, differentiation and molecular biological aspects of expression. Applicants should have appropriate training in biochemistry, cell or molecular biology. Send letter describing training and future goals, curriculum vitae, and names of three references to: Dr. Eric Holmes, Pacific Northwest Research Foundation, 720 Broadway, Seattle, WA 98122.

POSTDOCTORAL POSITIONS
The Department of Physiology and Biophysics at the University of Tennessee, Memphis, has openings at the postdoctoral level in the areas of cardiovascular (microcirculatory, role of autooids in control of regional vascular resistance), and CNS mechanism). control of fluid and electrolyte balance, CNS (temperature regulation, sleep, and the interaction of the immune system and the CNS), nonendocrine secretory tissues (glucocerebrosides, glucosyltransferases, activated oxygen, neurotransmitters, pathophysiology), and renal-endoctrine (renin angiotensin-aldosterone axis) physiology. Individuals with Ph.D., M.D., or equivalent degrees should send curriculum vitae and the names, addresses, and telephone numbers of three individuals to give reference to: Dr. Edward G. Schneider, Associate Professor and Acting Chairman, University of Tennessee, Memphis, Department of Physiology and Biophysics, 894 Union Avenue, Memphis, TN 38163. The University of Tennessee, Memphis, is an Equal Opportunity Affirmative Action Employer. Minorities and women are encouraged to apply.

POSTDOCTORAL POSITIONS
IN IMMUNOLOGY
Recent expansion of the immunology program at St. Jude Children's Research Hospital has created new opportunities for Postdoctoral Fellows. The major interests of individual faculty members include viral immunity (P. Doherty, J. Allan), lymphocyte ontogeny (J. Hurwitz, M. E. Conley), regulation of gene expression (C. Coleclough), macrophage biology (W. Walker, Fishman) and B cell and idiotypic interactions (D. Mettger, A. Brown).

St. Jude Children's Research Hospital is a multidisciplinary biomedical research institution providing many opportunities for collaborative interactions with, in particular, strong programs in molecular virology, tumor biology and growth factors. Annual salary begins at $22,000, commensurate with experience, and there is an excellent benefits package.

Send curriculum vitae and three letters of recommendation to: Peter C. Doherty, Chairman, Department of Immunology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101.

POSTDOCTORAL RESEARCH ASSOCIATE
study the genetic effects of carcinogenic metal compounds. Background in biochemistry or molecular biology. Experience with tissue culture and recombinant DNA technology desirable. Laboratory located in rural area, 50 miles north of New York City. Salary negotiable. Send curriculum vitae, names and telephone numbers of three references to: Dr. Toby G. Rosman, Institute of Environmental Medicine, New York University Medical Center, 550 First Avenue, New York, NY 10016. An Equal Opportunity Employer M/F.

NEW YORK UNIVERSITY
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POSTDOCTORAL RESEARCH OPPORTUNITIES
Applications are invited for postdoctoral research beginning in winter/spring 1989 to study: (i) Mechanisms of signal transduction and induction of gene transcription through cell surface receptor activation of mammalian cells by cytokines; and (ii) Role of interferons and other cytokines in the regulation of cell growth.

Experience in eukaryotic molecular biology and/or biochemistry is desirable. Applicants must be eligible for funding from the NIH (U.S. citizens and permanent residents). Send letter of application, curriculum vitae, and names and addresses of three references to: Dr. David E. Levy, Department of Pathology, NYU Medical Center, 550 First Avenue, New York, NY 10016.

Minorities are particularly encouraged to apply.
Science Program Coordinator

Babson College, located in Wellesley, MA, invites applications for a position as Science Program Coordinator starting September 1989. This is a senior position with responsibility for the development, implementation, and coordination of our science curriculum. We are leaders in science education for business students. Through curriculum development and outstanding teaching, the Coordinator will help us enhance the technological literacy of our students and their understanding of the connections among science, technology and business.

Send curriculum vitae and names of three references to:
Dr. Paul E. Ritt, Director, Academic Affairs, Babson College, Babson Park (Wellesley), MA 02157.

Babson College is an Equal Opportunity/Affirmative Action Employer

FACULTY POSITIONS
DEPARTMENT OF PHYSIOLOGY
NATIONAL UNIVERSITY OF SINGAPORE

The Department of Physiology of the National University of Singapore invites applications for faculty positions from individuals with MD, PhD or equivalent degrees and at least two years of postdoctoral experience in either of the following areas: (a) aspects of cellular or molecular physiology related to the regulation of cell growth and differentiation and (b) mechanism of action of hormones and hormone antagonists. The successful candidate will be expected to develop an independent research programme in his or her area of interest and to teach human physiology at undergraduate and postgraduate levels. The level of appointment will be commensurate with qualifications and experiences. The applicants should submit their curriculum vitae, a description of research plans, and the names of three referees to the Director, Personnel Department, National University of Singapore, 10 Kent Ridge Crescent, Singapore 0511.

PHARMACEUTICAL RESEARCH OPPORTUNITIES

OCULON CORPORATION, a pioneer in the development of diagnostic and prophylactic modalities for human cataract disease, has opportunities available in its Seattle research laboratories. Successful candidates will enjoy an exceptional environment in which to hone their professional skills, as well as the benefits of significant equity participation in an early-stage venture.

PHARMACOLOGIST

Individual will be responsible for the design, initiation, and monitoring of preclinical and clinical studies to assess pharmacokinetics, bioavailability, and metabolism of new drug candidates. Requires Ph.D. or Pharm.D. degree with a minimum of 5 years postdoctoral experience in pharmacology, preferably in the ophthalmic area. Supervisory and industry experience preferred.

ANALYTICAL CHEMIST

Responsible for the development and application of advanced analytical methods to the characterization of new drug candidates and their metabolites in support of preclinical and clinical studies. Requires Ph.D. in chemistry or biochemistry, with a minimum of three years postdoctoral experience and familiarity with HPLC methods.

OCULON Corporation combines a competitive salary and benefits package with a strong appreciation of the elements necessary to a successful drug discovery program. The Company's Pacific Northwest location provides easy access to recreational and cultural opportunities without state or local income taxes. To explore these positions further, please send your CV in confidence to:

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EQUAL OPPORTUNITY EMPLOYER

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

Applications are requested from new or recent doctorates in science, engineering and from individuals with equivalent degree status in related fields for fellowships to be awarded in the College. The College consists of four units covering all aspects of marine science and marine policy. Fellowship holders will be appointed in one of the following departments:

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

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

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

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

Fellowships are awarded for one year, renewable for a second year, with a stipend of $25,000 and a modest research budget. Health insurance is also provided. A complete application consists of transcripts of the applicant's graduate record, a vita, addresses and telephone numbers of three referees, a synopsis of the doctoral dissertation (not to exceed 2 pages) and month Ph.D. expected if not in hand, as well as a statement (not to exceed 2 pages) outlining the research the applicant proposes to undertake at UW. Applicants should cite their unit of primary interest and identify possible faculty mentor(s) in the College. Direct contact with such mentors is encouraged. All materials must be received by 1 January 1989. Awards will be announced in late March or early April, 1989.

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

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The National Institute for Occupational Safety and Health announces outstanding opportunities for research in:

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- EPIDEMIOLOGY

The National Research Council in cooperation with the National Institute for Occupational Safety and Health, Division of Respiratory Disease Studies in Morgantown, West Virginia will offer competitive research awards in 1989 for independent scientific research. Recipients will be free to work on problems of their own choice as guest investigators at NIOSH. Duration of awards is one year renewable to a maximum of two. This program is open to experienced scientists as well as to recent Ph.D. and M.D. graduates. Stipends begin at $28,000 for recent graduates and are appropriately higher for seniors. Relocation reimbursement and funds for professional travel on tenure are available, and a health insurance program is offered.

For further information and application materials please write to:

Associateship Programs (GR 430A/NS)
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2101 Constitution Avenue, N.W.
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Deadline for application
January 15.
RESEARCH ASSOCIATE. Conducting research into the biochemical nature of normal and diseased articular cartilage in the context of matrix synthesis and function, with special interest in the proteoglycan molecules, using various biochemical techniques such as gel chromatography, electron microscopy and histochemical techniques; developing new techniques to study cartilage and proteoglycan structure; monitoring the loss of cartilage components; preparing and studying fibraflax, and the stability and the role of osteophytes in osteoarthrits; assisting in the design of a goniometer to be used in knee replacement surgery to measure instability. The experience has included participation in the publication attending and participating in the various teaching conferences and academic meetings of the Orthopaedic Surgery Department. Applicants must have an M.D. degree in medicine as well as 1 year of experience as a Research Associate or 1 year of experience as a Resident in Orthopaedic Surgery. Experience must have included working with a dislocated cartilage or ligaments. Will accept applicants whose functional title may have been "medical officer" rather than "resident." Forty hours per week, Monday to Friday, with no overtime, 9:00 a.m. to 5:00 p.m.; $24,500 per annum. Send resume to: The Illinois Department of Employment, 701 South State St., Ste. 3-19, Chicago, IL 60605. Attention: Marie Ninneman, Reference #86711-N. Employer-paid ad.

RESEARCH ASSOCIATE, spring 1989 to investigate the role of sex steroids in bone cell biology. Postdoctoral experience in molecular biology and cell culture research is required. Applicants must have M.D. or Ph.D. in endocrinology, gynecology, or biochemistry. Cell biologists, applicants 1 to 3 years academic experience are needed. Rank for salary ($23,000 to $28,000) depend upon experience. Send curriculum vitae and letters of reference to: Dr. Eric Orwell, Oregon Health Sciences University (S346), 3181 Sam Jackson Park, Portland, OR 97201. OHSU is an Equal Opportunity Employer.

RESEARCH ASSOCIATE: Ph.D. in biochemistry with three or more years of experience. Background in cell separation and cell biology. Salary commensurate with experience. Send curriculum vitae and letter of recommendation to: Dr. Wayne L. Ryan, University of Nebraska Medical Center, Department of Obstetrics and Gynecology, 43rd & Dewey Avenue, Omaha, NE 68105. Application deadline 15 February 1989. Equal Employment Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE: Several Research Associate and Post-doctoral Fellow positions in the area of vascular smooth muscle excitation-contraction coupling are available for January 1989. The major areas of research include work with a multidisciplinary group whose activities include muscle mechanics, ion transport, phosphoinositide metabolism, laser light scattering, and intracellular calcium measurement. In vitro work in these areas will be beneficial. Applicants should send their curriculum vitae, names of references, and a summary of research experience and goals to: Robert H. Cox, Ph.D., Director, Boeckus Research Institute, The Graduate Hospital, One Graduate Plaza, Philadelphia, PA 19146. Affirmative Action/Equal Employment Opportunity.

RESEARCH ASSOCIATE: Conducting research into the biochemical nature of cell biology, using various biochemical techniques such as gel chromatography, electron microscopy and histochemical techniques. Developing new techniques to study cartilage and proteoglycan structure; monitoring the loss of cartilage components; preparing and studying fibraflax, and the stability and the role of osteophytes in osteoarthrits; assisting in the design of a goniometer to be used in knee replacement surgery to measure instability. The experience has included participation in the publication attending and participating in the various teaching conferences and academic meetings of the Orthopaedic Surgery Department. Applicants must have an M.D. degree in medicine as well as 1 year of experience as a Research Associate or 1 year of experience as a Resident in Orthopaedic Surgery. Experience must have included working with a dislocated cartilage or ligaments. Will accept applicants whose functional title may have been "medical officer" rather than "resident." Forty hours per week, Monday to Friday, with no overtime, 9:00 a.m. to 5:00 p.m.; $24,500 per annum. Send resume to: The Illinois Department of Employment, 701 South State St., Ste. 3-19, Chicago, IL 60605. Attention: Marie Ninneman, Reference #86711-N. Employer-paid ad.

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RESEARCH ASSOCIATE: Research plant physiologist: EPA Environmental Research Laboratory, Corvallis, Oregon. Seeking a quantitative physiological ecologist to conduct research on effects of terrestrial ecosystems. This is a full-time GM-14 position and requires a Ph.D. in quantitative ecology, plant physiology, forest science, or closely related discipline. Applicants must be able to demonstrate the following skills: (i) an ability to plan, implement, and lead complex research programs; (ii) experience in developing ecological and physiological models, and in biological and ecological research; (iii) strong written and oral skills; and (iv) proven ability to communicate research results both orally and in the peer reviewed literature. Position open only to U.S. citizens. Salary range: $48,592 to $63,172 per annum. For technical information on this position contact: Dr. Robert T. Lackey at the Corvallis Laboratory. Phone: 503-754-2400. To obtain a complete vacancy announcement, application package, and instructions, write: EPA Personnel Office, P.O. Box 98516, Las Vegas, NV 89193-8516 no later than 30 December 1988.

Rhode Island Hospital seeks a RESEARCH SCIENTIST with a Ph.D. in molecular biology (preferably) or biochemistry. Candidates must qualify for a position on the medical faculty of Brown University as Assistant Professor of Medicine (Research). One or 2 years of research training beyond the Ph.D. is required. The successful candidate will be involved in a research program focused on the molecular biology of control of vascular smooth muscle tone with emphasis on the coronary circulation. This person is expected to work closely with other faculty currently conducting related research in the area. Interested candidates should send curriculum vitae, letter of interest and references by 31 December 1988 to: Henry Gewirts, M.D., Chairman, Search Committee, Division of Cardiology, Rhode Island Hospital, 593 Eddy Street, Providence, RI 02903. Rhode Island Hospital is an Equal Employment Opportunity/Affirmative Action Employer and actively solicits applications from minority and protected groups.
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The University is an equal opportunity, affirmative action employer. Women and minority candidates are encouraged to apply.

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The National Research Council in cooperation with 30 selected federal laboratories announces three competitions in 1989 for approximately 450 research awards for independent scientific research. Recipients will be free to pursue research problems of their own choice as guest investigators at the federal laboratories. Duration of award is one year renewable to three. Annual stipend for recent Ph.D.'s vary from $27,150 to $35,000, depending upon the program sponsor, and are appropriately higher for senior researchers. Relocation reimbursement and funds for professional travel on tenure are available, and a health insurance program is provided.

For further information and application materials write to:

Associatehip Programs (GR 430A/S4)
NATIONAL RESEARCH COUNCIL
2101 Constitution Avenue, N.W.
Washington, DC 20418

Deadlines for application are: January 15
(December 15 for NASA), April 15 and August 15
POSITIONS OPEN

RESEARCH ASSOCIATE, POSTDOCTORAL, OR MASTER'S DEGREE WITH EXPERIENCE to study thyroid biology, endocrinology, and applied (fisheries biology) molecular population genetics of marine vertebrates and invertebrates. Experience in techniques of cloning, analysis of restriction fragment patterns, and single-copy DNA restriction fragment patterns is required. Knowledge of DNA sequencing techniques and proven publication ability is desirable. Position is available immediately in a multidisciplinary research facility with a state-of-the-art molecular genetics laboratory. Salary is $22,000 to $25,000 per annum, benefits not included. Send curriculum vitae, list of publications, and transcripts if graduated within the past 3 years, by 20 December 1988 to: Personnel Office, Florida State University, 100 Administration Avenue, Tallahassee, Florida 32306. An Equal Opportunity/Affirmative Action Employer.

SCIENTIFIC DIRECTOR

For new drug company. Ph.D. in biological sciences or M.D. required, as well as prior hands-on research experience in vascular disease and/or lipid and lipoprotein metabolism. Will work closely with V.P. and President. Involves working with sophisticated scientific advisory board, maintaining and developing contact and relations with key research centers in the U.S. and abroad. Salary open with adequate experience and expertise. Send résumé to: Cholesterol Corporation, 3100 Diablo Avenue, Hayward, CA 94545.

SECTION HEAD, Museum Education, Museum of Science, Boston, Massachusetts. Applications are invited for this senior level management position where you will be responsible for a balanced and diversified program of public education and community service. Responsibilities include management of all education services, including Schools Programs, Public Programs, Volunteer Programs, and Museums Education. Submit letter of application and résumé by 15 December 1988 to: Helen H. Hailer, Human Resources, Museum of Science, Science Park, Boston, MA 02114.

WASHINGTON AND JEFFERSON COLLEGE, a 1200-student liberal arts college in southwestern Pennsylvania, with approximately 200 biology majors, is adding a STAFF POSITION in molecular biology. Department will include developing and teaching courses in molecular biology and experimental biology, participation in the beginning stages of an independent research program, and advising. Experimental biology should be molecular in orientation and might include more in-depth work in areas such as recombinant DNA techniques, monoclonal antibody preparations, and tissue culture and management, strong interpersonal skills, and commitment to object-based informal science education. Send letter of application and résumé by 1 December 1988 to: H. Leslie Hailer, Human Resources, Museum of Science, Science Park, Boston, MA 02114.

SYSTEMATIC ENTOMOLOGIST

The Field Museum of Natural History seeks an outstanding scientist for a career track position as Assistant or Associate Curator of Insects in the Department of Zoology. The Field Museum's Entomology Collection contains more than 9 million specimens, and is particularly strong in holdings of Coleoptera and leaf-litter arthropods. The successful candidate will: (i) have a Ph.D.; (ii) have demonstrated a productive research and field program in systematic or evolutionary entomology; and (iii) have experience with curatorial procedures and materials used in entomology collections. In addition to developing a world-class research program, responsibilities include curation for some portion of the collection. The potential exists for participation in undergraduate and graduate education at the University of Chicago. Please send by 5 January 1989, curriculum vitae, copies of publications, a statement of research objectives, and three letters of recommendation to: Dr. B. Chernoff, Chairman—Search Committee, Division of Insects, Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, IL 60605. The Field Museum of Natural History is an Equal Opportunity Employer.

SABBATICAL POSITION—Funds are available to provide partial support for an individual wanting to pursue research in any of the following areas: Cancer genomics, study of proteins that act on the nervous system. The successful applicant will join a multidisciplinary research team consisting of a Biophysical glow an laboratorian, a molecular biologist, and a molecular biologist, and a molecular biologist, and a developmental neurobiologist. The new position will have an opportunity to learn and apply numerous techniques, ranging from protein chemistry to molecular biology. The applicant will be a phase sequence analysis of a cDNA clone, a peptide synthesizer, fluorescence microscopy and FACs, electron microscopy, electrophysiological methods and the techniques of isolated tissue preparations, tissue culture and monoclonal antibody facilities, etc. Positions are available for spring and fall 1989 for up to 1 year. Interested persons should submit curriculum vitae, list of publications, and names of references to: Dr. Lance L. Simpson, Jefferson Medical College, Three Rivers U.S. Medical Center, 1025 Walnut Street, Philadelphia, PA 19107. An Affirmative Action/Equal Opportunity Employer.

Lousiana State University (LSU) Eye Center is looking for a SENIOR PHARMACOLOGIST. Applicant should be interested in drug delivery systems although other areas of research will be considered. Previous experience in ophthalmology not necessary. Immediate opening is for Herbert Kaufman, M.D., LSU Eye Center, 2020 Grevier Street, Suite B, New Orleans, LA 70112. LSU M.C. is an Equal Employment Opportunity/Affirmative Action Employer.

The Department of Biology, Hampshire College, invites applications for a full-time, TENURE-TRACK POSITION in developmental biology. Teaching responsibility will include a course in Developmental Biology for majors, one course for biology majors, and one for nonmajors, and participation in the development of new courses. Applicants will have a strong background in molecular biology and will be committed to teaching at the undergraduate level. Ph.D. (or near completion) required. Rank and salary commensurate with experience. Send letter of application, resume and three letters of reference by 9 December 1988 to: M. Richard Segina, Chair, Department of Biology, Hampshire College, Oneonta, NY 13820. An Equal Opportunity Employer.

The Department of Biology at the University of Southwestern Louisiana (USL) invites applications for FOUR TENURE-TRACK POSITIONS in support of the doctoral program in Environmental and Evolutionary Biology. The Department invites applications in all areas of basic science and environmental science, including, but not limited to: microbial evolution, environmental immunology, functional genomics, and environmental gene expression. The biology faculty currently numbers 25 with research ranging from molecular to ecosystem studies. Applications should be received by the University of Microscopy Center and a Center for Advanced Computer Studies. Other resources include the Primate Research Center, the Center for Cancer Research, the University of Louisiana and marine consortium (LUMCON) marine laboratory and research vessels, and affiliation with the U.S. Fish and Wildlife Service's National Waterfowl Research Center. We are seeking qualified individuals in the following areas:

DEVELOPMENTAL BIOLOGY—research area open.
IMMUNOLOGY—research area open.
MICROBIOLOGY—research interests may include, but are not limited to, plant-microbe interactions and/or genetics.
WILDLIFE AND RESOURCE BIOLOGY—research interests may include, but are not limited to, remote sensing, landscape modeling and restoration, wildlife toxicology and nutrition, and bioinformatics.

A successful candidate will be expected to submit a concise statement of research goals, and names, addresses and telephone numbers of three referees. Review of applications will begin 1 December 1988 and continue until positions are filled. Direct application to: Faculty Development Search Committee, Department of Biology, University of Southwestern Louisiana, Lafayette, LA 70504-1951. Affirmative Action/Equal Opportunity Employer.

MEETING

THE HISTOCHEMICAL SOCIETY ANNUAL MEETING

Orlando Marriott Hotel
Orlando, Florida
31 March to 2 April 1989

For further information, registration and housing forms, please contact:
The Histochemical Society
Registration Supervisor
6900 Grove Road
Thorofare, NJ 08086-9447

PROGRAM

DOCTORAL PROGRAM IN MICROBIOLOGY Seeks qualified students to study molecular genetics, cell biology, virology, immunology, microbiology, microbial biochemistry, biotechnology, and applied and environmental biology in a cooperative program between Rutgers, The State University of New Jersey, and the New York State Museum of Natural History. Seventy-five faculty from various university departments, research centers and institutes participate in the program to provide excellent research training and employment opportunities. Fellowships, assistantships, and stipends of up to $11,000 per year in addition to tuition to qualified applicants on a competitive basis. Contact: Dr. Alan D. Antoine, Graduate Program in Microbiology, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903. Telephone: 201-932-9881. An Affirmative Action/Equal Opportunity Employer.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP

Fellowships are available, supported by an Institution- al National Research Service Award (NIH), in the area of Lipid/Lipoprotein Metabolism and Cardiovascular Disease. Research topics include regulation of hepatic production and secretion of lipoproteins, regulation of fatty acid oxidation and carnitine palmitoyltransferase regulation of cholesterol synthesis, phosphoinositides and calcium in transmembrane signaling, metabolic aspects of lipid absorption, autonomic mechanisms and vasodepressor peptides in arachidonic acid and prostaglandin metabolism, regulation of lipoprotein-lipase, mechanisms of reverse cholesterol transport, and regulation of lipolysis in adipocytes. First-year stipends are $20,000. Applicants must be U.S. citizens or permanent residents. Please send curriculum vitae and three letters of reference to: Murray Heimberg, Ph.D., M.D., University of Tennessee, Memphis, The Health Science Center, Memphis, TN 38163. Women and minorities are encouraged to apply. The University of Tennessee is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIPS IN ENVIRONMENTAL TOXICOLOGY AND PATHOLOGY are available at Northwestern University Medical School (NIH training grant T32). The applicants and their research areas are:

Toshio Nara
tashio Nara

Mechanisms of action of insecticides on neuronal ion channels by patch clamp. Implications of Janusian receptors on mammalian embryo); Michael Morin (Antineoplastic agents; Signal transduction and therapeutic application); Kyoichi Oya (Mechanisms of bladder cancer); M. Sambasiva Rao (Pancreas carcinoma); Janardan K. Reddy (Pancreatic carcinoma and liver peroxisome proliferators); Dante G. Scarpelli (Mechanisms of pan- creatic tumor growth: Polyamines: Biosynthesis inhibitors and role in growth regulation); Dennis S. (Carcinogen modification of epithelial cells); Chun Wu (Action of environmental toxins on nerve membranes by patch clamp). The applicants must be U.S. citizens or permanent residents. Send a letter stating a specific area of interest, curriculum vitae, and three letters of reference to: Dr. Toshio Nara, Pathology Program Director, Department of Pharmacology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611. Telephone: 312-998-8284. An Affirmative Action/Equal Opportunity Employer.
Cancer Research Fund

In search of outstanding scientists working in the field of cancer research

We are looking for outstanding scientists working in the field of cancer research. If you are interested in making a significant contribution to the field of cancer research, we encourage you to apply.

Section Manager/Immunology/Genetics

The successful candidate will have a strong background in immunology and genetics, with experience in research and development. A PhD in immunology and genetics is required, along with 3-5 years of experience in the field.

Insect Research

We are seeking an experienced scientist with a strong background in insect research. A PhD in insect science is required, along with 3-5 years of experience in the field.

Postdoctoral Fellowships

These fellowships are available to outstanding scientists working in the field of cancer research. A PhD in cancer research is required, along with 1-2 years of experience in the field.

Molecular and Cell Biology

We are seeking an outstanding scientist with a strong background in molecular and cell biology. A PhD in molecular and cell biology is required, along with 3-5 years of experience in the field.

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Candidates must have completed 2 years of postdoctoral work. Appointments will be made in all areas of scientific research at the Institute.

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

Several positions for research in individual laboratories in the Department are available for candidates who have demonstrated research promise at the postdoctoral or postdoctoral level. The emphasis of research in the Department is in those areas of specialization in electrophysiology, neurophysiology, and molecular neurobiology. The faculty of the Department and their research interests are:

- Dr. Robert Blanks: Eye movement control, physiology of upper airway
- Dr. James Fallon: Chemical neuroanatomy, transmitters and growth factors
- Dr. Christian Gell: Limbic/olfactory anatomy, neuropeptides, neurochemical plasticity
- Dr. Roland Giolli: Visionary system
- Dr. Steward Hendry: Primate visual system
- Dr. Paul Isacke: Molecular neurology
- Dr. Edward Jones: Sensory-motor anatomy and physiology
- Dr. Leonid Kizies: Auditory system anatomy and physiology
- Dr. Charles Ribak: Epilepsy, neurotransmitters and circuits
- Dr. Richard Robertson: Thalamocortical development
- Dr. Malcolm Semple: Auditory processing
- Dr. John Swett: Spinal cord and peripheral nervous system
- Dr. Yashiro Torigoe: Peripheral nervous system and ocoulomotor control

Applications or inquiries for additional information should be sent to:
Dr. Edward G. Jones, Chairman
Department of Anatomy and Neurobiology
University of California
Med Sturge II, Room 504
Irvine, CA 92717

An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIPS IN CARDIOVASCULAR PATHOLOGY

Diagnostic training involves rigorous assessment of autopsy and surgical specimens from three major hospitals. Research training is available in an extramural environment that includes widely recognized and strongly interconnected research programs in cardiovascular pathobiology. Applicants should have completed basic training in anatomic pathology. Forward curriculum vitae and statement of career goals to:

Jeffrey E. Safitz, M.D., Ph.D., Department of Pathology, Washington University, 660 South Euclid Avenue, St. Louis, MO 63110.

POSTDOCTORAL FELLOWSHIPS IN intracellular calcium, biochemistry, genetics, renal metabolism and hypertension are available immediately through an NIH Research Training Program at the Medical College of Virginia (MCV). Salary $24,000 to $27,000 plus travel, tuition and other benefits. Opportunity for professional growth. Candidate must have a Ph.D., M.D. or equivalent degrees and be a permanent resident or citizen of the United States. Applicants should send curriculum vitae, concise statement of research interest, and the names of three references to:
Dr. J. C. M. Chan, Box 498 MCV Station, Richmond, VA 23298-0498.

POSTDOCTORAL FELLOWSHIPS

We invite inquiries from candidates with a Ph.D., M.D./Ph.D. or M.D. for a 3-year postdoctoral fellowship in studies of connective tissue cells and matrix, and osteoarthritis, including chondrocyte biology, and animal models of arthritis. This position is supported by an NIH training grant. Please address inquiries accompanied by curriculum vitae to: Roland W. Moskowitz, M.D., Division of Rheumatology, Department of Medicine, University Hospitals of Cleveland, 2073 Abington Road, Cleveland, OH 44106.

C. H. BEST FOUNDATION POSTDOCTORAL FELLOWSHIPS

In diabetes research, molecular endocrinology, molecular biology, differentiation, reproductive biology, immunology, structure and function of membranes or lipid metabolism. Tenable in the Banting and Best Department of Medical Research for 2 years after 1 July 1989. Send curriculum vitae, transcripts, and three letters of reference, preferably before 30 November 1988 to: Dr. Arnis Kekais, Fellowship Committee Chairman, Banting and Best Department of Medical Research, University of Toronto, Toronto, Canada M5G 1L6.

SMITHSONIAN FELLOWSHIPS IN TROPICAL BIOLOGY

Several predoctoral, postdoctoral and senior postdoctoral fellowships are available to conduct research at the Smithsonian Tropical Research Institute (STRI) in the Republic of Panama. STRI is an international center for advanced study in tropical biology (ecology, human ecology, paleoecology, evolution, behavior, plant physiology, molecular evolution) and archaeology. The Institute has a permanent scientific staff of 26 and supports visiting scientists and fellows. STRI facilities include: a field station at Barro Colorado Island and mainland living and training quarters (Gambol tropical moister forest); living quarters at Fortuna in Western Panama (montane forest); marine laboratories on the Pacific and Atlantic coasts and a field station in the Caribbean, and a research library.

For applications, contact:
Office of Fellowships and Grants
Smithsonian Institution, Drawer TB
1-Enfant Plaza, Suite 730
Washington, DC 20560
Telephone: 202-287-3571
Deadline: 15 January annually.

MARKETPLACE

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