## 1992 AAAS Philip Hauge Abelson Prize

The AAAS Philip Hauge Abelson Prize of \$2,500, established by the AAAS Board of Directors in 1985, is awarded annually either to:

- a public servant, in recognition of sustained exceptional contributions to advancing science, or
- a scientist whose career has been distinguished both for scientific achievement and for other notable services to the scientific community.

AAAS members are invited to submit nominations now for the 1992 prize, to be awarded at the 1993 Annual Meeting in Boston, MA. Each nomination must be seconded by at least two other AAAS members.

Nominations should be typed and should include the following information: nominee's typed name, institutional affiliation and title, address, and brief biographical resume (please do not send lengthy publications lists); statement of justification for nomination; and names, identification, and signatures of the three or more AAAS member sponsors.

Nominations should be submitted to Amy Crumpton, AAAS Directorate for Science and Policy Programs, 1333 H Street, N.W., Washington, DC 20005, for receipt by **1 August 1992**.

## 1993 AAAS Scientific Freedom and Responsibility Award

## To Encourage Scientists and Engineers to Reflect Upon the Social Implications of their Professional Actions

The AAAS Scientific Freedom and Responsibility Award, established by the AAAS Board of Directors in 1980, is awarded annually to scientists and engineers who have:

- acted to protect the public's health, safety, or welfare; or
- focused public attention on important potential impacts of science and technology on society by their responsible participation in public policy debates; or
- established important new precedents in carrying out the social responsibilities or in defending the professional freedoms of scientists and engineers.

You are invited to submit nominations now for the 1993 award, to be presented at the 1993 AAAS Annual Meeting in Boston, MA. A recipient of the award is selected by a panel of six judges. The deadline for receipt of entries is **15 July 1992.** 

Requests for nomination forms and more information should be sent to: Amy Crumpton, Directorate for Science and Policy Programs, AAAS, 1333 H Street, NW, Washington, DC 20005.



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## Scientific Word Processing Software

Scientific Word is a word processing program that produces typeset quality formulas, equations, and documents. The program recognizes mathematical symbols and automatically italicizes, sizes, spaces, and positions symbols for the user. There is no need to learn unfamiliar codes to enter mathematics. The user simply clicks the mouse on symbols in the onscreen panels and they appear in the document. The symbols can also be entered with keyboard shortcuts. The program requires a computer with Microsoft Windows 3.0 or higher and a minimum of two megabytes memory. TCI Software Research. Circle 90.

## Magnetic Radiation Meter

This hand-held, battery-powered magnetic radiation meter can be used to survey the lab for sources of electromagnetic interference (EMI) before setting up sensitive



equipment. It has a magnetic field measurement range of 0 to 10 milligauss. A switch allows the user to detect either low-frequency (60 Hz) or high-frequency (16 to 40 Hz) EMI. Low-frequency EMI is typical of the ambient field produced by power lines and fluorescent lights, while high-frequency EMI typically radiates from video display tubes. World Precision Instruments. Circle 91.

## Microvolume Biodialyser

The Sialomed Biodialyser offers a fast approach to dialysis of biological samples from 10 to 1500 µl. Made of inert Teflon, it is available for volumes of 10, 50, 100, 200, 500, 1000, and 1500 µl, with precut ultrafiltration membrane sizes including 0.1, 0.5, 1, 2, 5, 10, 25, 50, 100, and 300 K. There is no overflow or cross-contamination of samples, and sample loss is minimal. It can be used for sample preparations for highperformance liquid chromatography, electrophoresis, equilibrium dialysis, immunoblotting, buffer exchange, enzyme assay, removal of excess radiolabel, removal of salts before derivatization of sugars, protein binding assay, removal of primer in polymerase chain reactions, and other applications. Sialomed. Circle 92.

## Antibodies to Human Integrins

An extensive line of monoclonal antibodies to human integrins is available for extracellular matrix research. The antibodies are suitable for use in assays such as enzyme-linked immunosorbent assays, immunofluorescence, immunoblotting, immunoprecipitation, and cell attachment studies. Telios Pharmaceuticals. Circle 93.

## Ultrafiltration Disk Membranes

UltraSep ultrafiltration disk membranes, manufactured of polysulfone, combine high flow rates, controlled pore structures, efficient retention, and excellent sample recovery. The membranes are designed to purify and concentrate proteins, enzymes, nucleic acids, and antibodies. They are low protein binding and noncytotoxic and do not denature biological samples. They are available in nominal molecular weight cutoffs of 10,000, 30,000, and 100,000 in diameter sizes of 25, 44.5, 63.5, 76, 90, and 150 mm. Micron Separations Inc. Circle 94.

## Cryostopped-Flowed Spectrofluorimeter

The SF-40 Series Stopped-Flow Spectrofluorimeters make use of the latest in rapid reaction technology to facilitate the study of the kinetics of fast reactions between -100° and +60°C. The cryostatic capability (which slows the rate of reaction), the system dead time of around 2 ms, the absorbance and fluorescence measurement capability, and the ability to mix sequentially more than one reagent combine to produce systems that allow the study of a wide range of reactions. Variable ratio mixing, simultaneous monitoring of two detection channels, anaerobic operation, and conductivity detection are all possible. Hi-Tech Scientific. Circle 95.

## Endonuclease Eliminates Interfering Nucleic Acids

Benzonase is a genetically engineered endonuclease that degrades all forms of DNA and RNA for rapid isolation and purification of proteins, peptides, carbohydrates, and lipids. Because of its nonspecific, active nature, small amounts (1 to 10 mg) of Benzonase are sufficient to degrade the interfering nucleic acids into oligonucleotides in the 3- to 5-bp range, greatly simplifying protein purification processes. Benzonase assures a lower viscosity of the sample matrix; consequently, nucleic acid fragments can be easily removed by dialysis. EM Science. Circle 96.

## **Cryogenic Vials**

Cryosure cryogenic vials are designed for storing cell cultures, biological fluids such as serum or sperm, and aqueous cell solutions at vapor-phase liquid nitrogen temperatures (-195°C). Free-



standing and round-bottomed 0.4-ml capacity sizes have been added to the existing line of freestanding 1.0-, 1.5-, and 3.5-ml capacity vials. The four freestanding vials feature an octagonal base that locks into the CryoSure Processing Rack for one-handed capping and uncapping. The polypropylene copolymer material is nearly transparent and provides superior tensile strength and resistance to gamma radiation sterilization. Evergreen Scientific. Circle 97.

## itoratur

## Literature

Supercritical Fluid Technology is a 12-page brochure featuring pure grade fluids and gas mixtures with major attention focused on two supercritical fluid chromatography-grade carbon dioxide products—research purity and ultrahigh purity carbon dioxide. Scott Specialty Gases Inc. Circle 98.

Products for Cell Science is a product guide for researchers using mammalian cells. It includes 95 application references relevant to centrifugation, immunology, and cell culture, along with extensive notes on the physical characteristics of the products, tips on their usage, and a list of product literature. Pharmacia LKB Biotechnology. Circle 99.

Synthetic Peptides Made to Your Specifications is a brochure covering custom services. IAF Bio-Chem International. Circle 100.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card and placing it in a mailbox. Postage is free.

## Science

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- Cancellations: Deadline for cancellation is 10 a.m., Tuesday, 10 days prior to issue date.

## **DISPLAY PERSONNEL ADVERTISEMENTS**

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

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## **POSITIONS OPEN**

ANIMAL PHYSIOLOGY-HUMAN ANATOMY AND PHYSIOLOGY: ASSISTANT PROFESSOR, Tenure track, Plymouth State College (PSC). To teach animal physiology (one semester per year) and share teaching of large human anatomy and physiology course (two-semester sequence—lecture and lab each semester); serve as undergraduate research advisor in area of animal physiology. Minimum qualifications: Ph.D. in discipline; prior teaching at college level advantageous. Starting salary: \$28,000 to \$30,000 or negotiable (*hiring contingent upon eligibility to work in United States*). Send curriculum vitae and three letters of recommendation to: Chair, Animal Physiology Search Committee, Department of Natural Science, Plymouth State College, Plymouth, NH 03264. Deadline: 5 June 1992 to begin 31 August. PSC is an Affirmative Action/Equal Employment Opportunity Employer and actively seeks women and minority candidates.

#### ASSISTANT PROFESSOR OF BIOLOGY

The Biology Department of Raymond Walters College, the University of Cincinnati, is seeking applications from individuals to fill a tenure-track position at the level of **ASSISTANT PROFESSOR OF BIOLOGY** beginning 1 September 1992. Primary teaching duties will include courses in general biology, genetics, and microbiology. The successful candidate must have a Ph.D. degree in a biological science and must demonstrate significant teaching experience with primary course responsibility for lecture and laboratory preparation at the college level. Please send a detailed résumé, including a summary of teaching experience, courses taught, evidence of teaching proficiency (student evaluations), college transcripts and three letters of professional reference, to: **Dr. Donald M. Meismer, Chairman, Department of Biology, Raymond Walters College, University of Cincinnati, 9555 Plainfield Road, Cincinnati, OH <b>45236**. All application materials must be received by 1 July 1992. The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.

#### UNIVERSITY OF LOUISIVILLE SCHOOL OF MEDICINE DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

A tenure-track ASSISTANT PROFESSOR position in MOLECULAR VIROLOGY is available for fall 1992. The University of Louisville is part of the state university system, and the department is undergoing expansion at all levels. Candidates should hold a Ph.D., D.V.M., M.D. or equivalent degree, have at least 2 years of postdoctoral experience, and have demonstrated expertise and productivity in molecular studies involving human or animal viruses. The successful applicant will receive good start-up support and a 12-month salary and be expected to establish an independent research program in molecular virology. He/she will also be expected to interact with other virology faculty and demonstrate proficiency in teaching virology to medical, dental and graduate students. Applicants should send by 15 July 1992 their curriculum vitae, a statement of research interests, and names of three references to: Dr. Gordon D. Ross, Chairman, Department of Microbiology and Immunology, University of Louisville, Louisville, KY 40292. Equal Employment Opportunity (M/F) Employer.

FIELD VERTEBRATE ZOOLOGIST: ASSIST-ANT PROFESSOR, tenure track, Plymouth State College (PSC). To teach lower-level vertebrate zoology, which is laboratory and field-oriented, and general biology I and II including labs; assist upper-division biology majors on student research projects; contribute to environmental biology program; serve on department and college committees as appropriate. Minimum qualifications: Ph.D.; college-level teaching experience; research experience in field vertebrate zoology; familiarity with the Northern Forest. Starting salary: \$28,000 to \$30,000 or negotiable (*hiring contingent upon eligibility to work in the United States*). Send letter of application, résumé, and three letters of recommendation to: Richard Fralick, Plymouth State College, Natural Science, Boyd Hall, Plymouth, NH 03264. Deadline: 5 June 1992 to begin 31 August 1992. PSC is an Affirmative Action/Equal Employment Opportunity Employer and actively seeks women and minority candidates.

## **POSITIONS OPEN**

The Biology & Microbiology Department at the University of Wisconsin Oshkosh is seeking applicants for an entry-level, tenure-track ASSISTANT PROFESSOR position to begin 8 September 1992. Teaching responsibilities will be electron microscopy, introductory biology and to develop a course in plant anatomy. Applicant will maintain all the electron microscopy equipment, including modern TEM and SEM, and assist other faculty and students with research projects. Candidate is expected to develop a research program in plant biology, to pursue extramural funding, and to supervise master's theses. Postdoctoral and teaching experience desirable. The university has a Faculty Development Program for limited funding for research and to provide matching funds for extramural grants. Screening of applicants will begin 15 June 1992 and will continue until the application deadline of 6 July 1992. Send letter of application, résumé, three current letters of recommendation, and official transcripts to: M. A. Rouf, Chairman, Department of Biology & Microbiology, University of Wisconsin Oshkosh, Oshkosh, WI 54901. An alphabetical listing of all nominees and applicants, without differentiation, may be released following the closing date. The University of Wisconsin Oshkosh is an Affirmative Action/Equal Opportunity Employer.

#### UNIVERSITY-OF LOUISVILLE SCHOOL OF MEDICINE DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

A tenure-track ASSISTANT PROFESSOR position is available. Candidates should hold a Ph.D., D.V.M., or M.D. degree and have at least 6 years of postdoctoral experience. The successful applicant will receive start-up support, be expected to excel in the teaching of medical and graduate students, and be able to establish an independent research program in cellular immunology. Experience in cytokines, macrophages, membrane receptor biology, flow cytometry, immunology of annelids, antigen presentation, and NK cells is particularly desirable. By 1 July 1992 applicants should send their curriculum vitae, a statement of research interests, and the names of three references to: Dr. Gordon D. Ross, Chairman, Department of Microbiology and Immunology, University of Louisville, Louisville, KY 40292. The University of Louisville is an Equal Opportunity Educator and Employer that specifically encourages applications from women and minorities.

PHYSIOLOGY, ASSISTANT PROFESSOR (research track) position available for investigations on the molecular and biochemical properties of calmodulinregulated enzymes including myosin light chain kinases and nitric oxide synthases. An integrative research program on the biological adaptations of vascular smooth muscle and endothelial cells offers collaborative opportunities dealing with growth responses, dynamic regulation of contractile elements and signal transduction pathways. Experience in molecular biology required. Please send curriculum vitae with three references listed to: James T. Stull, Ph.D., Department of Physiology, University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 7235–9040, telephone: 214-688-6849, FAX: 214-688-2974. An Affirmative Action/Equal Opportunity Employer.

The University of North Dakota School of Medicine seeks applicants for a position of ASSISTANT OR ASSOCIATE PROFESSOR to join the DEPART-MENT OF PHYSIOLOGY under the direction of its new chairman. The successful candidate will be expected to contribute to the teaching of medical and allied health sciences physiology and to establish an independently funded research program. Demonstration of experience in these endeavors is critical. Applications should include curriculum vitae with statements of teaching experience and research interests, reprints of three selected publications, and the names of three individuals willing to serve as references. Women, minorities and veterans are encouraged to apply. Applications should be sent to: Dr. Willis K. Samson, Chairman of Physiology, University of North Dakota School of Medicine, Grand Forks, ND 58202. We are an Equal Opportunity/Affirmative Action Employer.

The University of Texas Health Science Center at Houston, School of Public Health, invites applications for two tenure-track (12-month) positions. We are seeking one ASSISTANT PROFESSOR at the Houston campus and an ASSISTANT/ASSOCIATE PROFES-SOR for a developing Master of Public Health program satellite in cooperation with the University of Texas at El Paso. Candidates should have a Ph.D. or equivalent in environmental sciences, environmental health, or a related area. Responsibilities will include graduate teaching and advising, community service, and research.

Candidates for the Houston position are expected to have research expertise in radiation health or solid/hazardous waste and to be able to teach broadly in environmental science.

Candidates for the El Paso position will be considered on the basis of interest and expertise in U.S.-Mexico border studies.

Qualified candidates for the position should send their curriculum vitae and three letters of reference to: Dr. Thomas Connor, School of Public Health, The University of Texas Health Science Center at Houston, P.O. Box 20186, Houston, TX 77225 by 15 June 1992.

The University of Texas is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

IMMUNOCYTOGENETICIST. Ph.D. or M.D. at ASSISTANT or ASSOCIATE PROFESSOR level to work in the 500-bed Temple University Hospital, which has active heart, kidney and bone marrow transplantation programs. Expertise in HLA typing required. Expertise in research and research funding are assets. Teaching of residents expected. Apply to: H. Simpkins, M.D., Ph.D., Professor and Chairperson, Department of Pathology, TEMPLE UNIVERSITY SCHOOL OF MEDICINE, 3401 North Broad Street, Philadelphia, PA 19140. Temple University is an Equal Opportunity/Afirmative Action Employer and strongly encourages applications from women and minorities.

#### MOLECULAR BIOLOGIST/ NEUROBIOLOGIST MEHARRY MEDICAL COLLEGE

Applications are invited for a tenure-track position as ASSISTANT OR ASSOCIATE PROFESSOR in the Division of Biomedical Sciences. Candidates are sought with training and research experience in areas including: genetics, developmental biology, receptor biology and/or signal transduction mechanisms. Emphasis in neurobiology is desirable but not required. Successful applicants will be expected to participate in graduate and professional teaching programs and to develop and maintain an extramurally funded research program. Institutional programs in cell and molecular biology, sickle cell anemia, neurosciences, AIDS and tropical diseases provide opportunities for collaborative research. Applications from minority and women candidates are especially encouraged. Please send curriculum vitae, a summary of research interests and three letters of references to:

Dr. Manuel S. Valenzuela Chairman, Search Committee Division of Biomedical Sciences Meharty Medical College Nashville, TN 37208 Telephone: 615-327-6253

Meharry Medical College is an Affirmative Action/Equal Opportunity Employer.

#### CELL/MOLECULAR BIOLOGIST

The Maisonneuve-Rosemont Hospital Research Center, affiliated with the University of Montreal, invites applications for two tenure-track positions at the ASSIS-TANT/ASSOCIATE PROFESSOR level. Ph.D. required. The successful applicant will be expected to join one of our three research groups: bone and kidney physiology, reproduction biology or immunology. The duties of the position include the development of a vigorous independent research program employing modern methods of cell and/or molecular biology and involvement in graduate training. Positions available 1 July 1992. Please forward curriculum vitae, names/addresses of three references, and future research plans to: Dr. C. Perreault, Director, Research Center, Maisonneuve-Rosemont Hospital, 5415 de l'Assomption Boulevard, Montreal, Quebec, Canada H1T 2M4.

#### **POSITIONS OPEN**

#### ASSISTANT PROFESSOR

**RESEARCH POSITION** (tenure track) open for an individual with an interest in psychoneuroimmunology. A strong research record in a related basic science area (e.g., immunology, neuroscience) and a collaborative outlook are essential. Salary commensurate with experience. Housing available. Send curriculum vitae and names of three references to: Dr. Dana Bovbjerg, PNI Laboratory–Box 457, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Equal Opportunity/Affirmative Action Employer.

VISITING RESEARCH ASSISTANT PROFESSOR (MRI SPECTROSCOPIST)

An immediate position is available for an MRI SPEC-TROSCOPIST with a strong background in electronics and coil design. Please address inquiries to: Dr. Daniel Fiat (M/C 901), Department of Physiology and Biophysics, P.O. Box 6998, Chicago, IL 60680, telephone: 312-996-7609, FAX: 312-996-1414.

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

PHARMACOLOGY—UNIVERSITY OF PENN-SYLVANIA. The Department of Pharmacology is recruiting four to six additional faculty to the tenure track at the rank of ASSISTANT or ASSOCIATE PROFES-SOR. Investigators with interests in the broad areas of analytical/molecular pharmacology and cellular/molecular pharmacology will be appointed. Examples of potential areas of interest include: (1) structure and function of biomolecules using analytical techniques (e.g., NMR, EPR, MS, molecular modeling, affinity labeling and mutagenesis); (2) enzyme-inhibitor/receptor-ligand design; (3) drug or second-messenger metabolism; (4) growth factor signaling; (5) gene manipulation (e.g., gene transfer, embryonic stem cells and transgenics); and (6) ion channel/brain slice electrophysiology. Applicants should have postdoctoral research experience and the ability to develop a strong extramurally funded research program. Renovated laboratory space and start-up funds are available. Applications from women and minorities are especially encouraged. Inquiries should include curriculum vitae, list of publications, reprints or preprints of selected papers, and a statement of research interests. Résumés and three letters of recommendation should be sent to: Search Committee, Department of Pharmacology, University of Pennsylvania School of Medicine, Philadelphia, PA J9104-0684. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE/FULL PROFESSOR: ZOOLOGICAL MEDICINE—CAGED BIRDS. Level and salary dependent on qualifications of selected applicant. D.V.M. or equivalent, Board certification or eligibility in American College of Zoological Medicine and/or American Board of Veterinary Practitioners (Avian Specialty), and clinical experience with caged birds required. Demonstrated aptitude or experience in teaching and research, and qualities for leadership in field. Request full position description from: Clarice Martin, Department of Medicine, School of Veterinary Medicine, University of California, Davis, CA 95616, telephone: 916-752-1363. Applications accepted through 15 August 1992 or until a candidate is identified. The University of California is an Affirmative Action/Equal Opportunity Employer.

DEPARTMENT OF PHARMACOLOGY, THE OHIO STATE UNIVERSITY COLLEGE OF MEDICINE. Applications are invited for an ASSOCI-ATE/FULL PROFESSOR tenure-track faculty position. Expertise in one of the following areas is preferred: molecular toxicology, neuropharmacology or cardiovascular pharmacology. Outstanding individuals with active funded research programs and teaching experience suitable for a department of pharmacology are being sought. The successful candidate is expected to continue to expand his/her research program and to be involved with the teaching and training of medical and graduate students. Applicants, M.D. and/or Ph.D., should send curriculum vitae, statement of research and teaching interests and experience, and the names of three references by 30 June 1992 to: Dr. John J. Enyeart, Chair, Search Committee, Department of Pharmacology, The Ohio State University College of Medicine, 5198 Graves Hall, 333 West Tenth Avenue, Columbus, OH 43210–1239. The Ohio State University is an Affirmative Action/Equal Opportunity Employer. Qualified women, minorities, Vietnam-era Veterans, disabled veterans and the disabled are encouraged to apply. POSITIONS OPEN ANT/ASSOCIATE/FULL PROFI

ASSISTANT/ASSOCIATE/FULL PROFESSOR: ZOOLOGICAL MEDICINE—CAPTIVE WILD ANIMALS. Level and salary dependent on qualifications of selected applicant. D.V.M. or equivalent, Board certification or eligibility in American College of Zoological Medicine, and clinical experience with captive wild animals required. Demonstrated aptitude or experience in teaching and research, and qualities for leadership in field. Request full position description from: Clarice Martin, Department of Medicine, School of Veterinary Medicine, University of California, Davis, CA 95616, telephone: 916-752-1363. Applications accepted through 15 August 1992 or until a candidate is identified. The University of California is an Affirmative Action/Equal Opportunity Employer.

#### INFECTIOUS DISEASE EPIDEMIOLOGIST

Emory University School of Public Health seeks an ASSOCIATE/FULL PROFESSOR (tenure or tenure track) in infectious disease epidemiology. The position (available immediately) entails development of an externally funded research program and a major role in teaching master's/doctoral-level students. Interested applicants should submit curriculum vitae, publication list and the names of at least three referees to: Dr. M. Elizabeth Halloran, Emory University School of Public Health, 1599 Clifton Road, NE, Atlanta, GA 30329. Review begins 1 July 1992. Emory University is an Equal Opportunity, Afirmative Action Employer. Applications from women and minorities are particularly encouraged.

#### HEAD, SCHOOL OF HEALTH SCIENCES

**PURDUE UNIVERSITY, WEST LAFAYETTE, INDIANA.** The School of Health Sciences seeks a head with the following qualifications:

 Academic or equivalent experience to merit a faculty rank of professor. Record of excellence in research in industrial hygienc, health physics, or related disciplines in environmental health sciences. Strong commitment to excellence in professional and graduate education. Demonstrated leadership and/or administrative experience.

onstrated leadership and/or administrative experience. Candidates should submit a letter of introduction which includes a statement of research interests, curriculum vitae, and the names, addresses, and telephone numbers of three references to: Professor William F. Greenlee, Head of the Search Committee, Department of Pharmacology and Toxicology, School of Pharmacy and Pharmacal Sciences, Purdue University, West Lafayette, IN 47907–1334. The review of applications will begin immediately and continue until the position is filled. Purdue University is an Equal Opportunity/Affirmative Action Employer.

## TECHNICAL SERVICES MANAGER

Kemin Industries, Inc., a manufacturer of mold inhibitors, antimicrobial compounds, marigold pigmenters, antioxidants, flavors and surfactants for animal feed, seeks a technical services manager for its North and South America operations. Based in Des Moines, Iowa, the successful candidate will have a Ph.D. in biochemistry or related field and possess excellent oral presentation skills. The technical services manager will provide technical product information and consulting for customers, organize university efficacy trials, provide technical training for salespeople and distributors, and supervise two technical service laboratory personnel. A background in animal agriculture as well as commercial experience is preferred. Frequent overnight travel is typical during the work week. Non-smoking environment. Pre-employment physical with drug screen required. Please submit a résumé, as well as other relevant information, to: Dr. C. E. Nelson, Kemin Industries, Inc., Box 70, Des Moines, IA 50301. Equal Opportunity Employer.



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# **INSECT BIOLOGY**

Merck Research Laboratories is seeking applicants for three positions in our Basic Animal Science Research Department. The successful candidates will form an insect control research group; areas of interest will be: mechanism based drug research, identification of inhibitors of insect hormones and transcriptional control mechanisms, involved in neuronal development and embryonic pattern formation.

## Associate Director/ Senior Research Fellow

To direct a group of five researchers focusing on insect control and insecticide development. The focus is to generate inhibitors of insect hormones and transcriptional control mechanisms. The Insect Group will be part of a team of 25 researchers in the department of Genetics and Molecular Biology whose research focuses on mechanism based drug research in neurobiology, transcriptional control and endocrinology. The successful candidate will have a Ph.D. or equivalent degree, with at least five years of experience in Insect-Physiology, Molecular Biology and/or Insect Genetics. Active research experience with Drosophila melanogaster and/or Manduca sexta is essential. At least two years of experience supervising a research group and a strong record of scientific accomplishment are required. (Ref.# S-38)

## **Senior Research Biologist**

To perform research in Drosophila molecular genetics and neuronal development. The qualified individual will be part of a research team focusing on mechanism based drug development for insect control. The successful candidate will have a Ph.D. or equivalent degree in Drosophila Molecular Biology and Biochemistry. (**Ref.# S-39**)

## **Staff Biologist**

To perform research in the Insect Biology group on insect control. Research experience with Drosophila is essential and familiarity with insect physiology desirable. M.S. or equivalent in Biology, Molecular Biology and 2 years of experience, or B.S. or equivalent with 3 years of experience. (**Ref.# S-40**)

Salary, benefits and growth potential for these positions are excellent. The work location is in Rahway, New Jersey, approximately 25 miles from New York City.

Please address resume and outline of research interests, with three references to Dr. L.H.T. Van der Ploeg, Director, Department of Genetics and Molecular Biology. Mail applications to: Human Resources Manager, P.O. Box 2000, WBC-155, Rahway, NJ 07065. EEO/AA/VH Employer.



# Cancer Drug Discovery

Solve the equation for success.



**P**fizer, a U.S. based multinational pharmaceutical company, is seeking a qualified scientist for its Cancer Drug Discovery group at our Central Research facility in Groton, Connecticut. We are looking for an individual with strong credentials in the areas of molecular biology and cancer pharmacology.

You will participate in the development of strategies to exploit cancer cell selective molecular targets and create approaches towards cancer drug discovery as novel targets are identified. Your qualifications should include a PhD degree and at least two years of postdoctoral training. Individuals who have applied their expertise in the cloning and characterization of novel genes to the field of tumor cell biology (oncogenes, tumor suppressor genes, differentiation, etc.) are particularly encouraged to apply.

Pfizer offers a stimulating research environment and a competitive compensation and benefits package, along with relocation assistance to this southeastern Connecticut shoreline community. Please send a resume and the names of three references to: Mr. Kym Goddu, Personnel Associate, Employee Resources Department, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340. An equal opportunity employer.



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The Jackson Labora tory, located on the iacent to Acadia National Park, is a world-renowned center for mammalian



genetics. We are increasing the scientific staff and doubling the space for basic

## Sr. Research Assistant Molecular Hematology

Dr. David E. Harrison has an opening for candidates with at least a BS and suffi-cient experience to be accomplished in Cient experience to be accomplished in molecular biology. The Sr. Research Assistant will design, carry out and advise others in molecular approaches to stem cell hematology. The Sr. Research Assis-tant will take the leading role in projects such as the following: producing and quantitatively analyzing descendents of stem cells containing random retroviral insertions: defining new anticens from stem cells by identifying and cloning receptors and their ligands. Position requires willingness to learn cell biology techniques, including monoclonal anti-body production, stem cell transplanta-tion and analysis tion, and analysis.

Qualified candidates should send resume to: Harold Wheeler, Manager of Human Resources, The Jackson Laboratory, 600 Main Street, Bar Harbor, ME 04609, 0070 089 0271 (207) 288-3371

an affirmative action/equal opportunity employer The Jackson

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## **ACS Eminent Scholar FACULTY POSITION CANCER CELL**/ **MOLECULAR BIOLOGY University of Florida College of Medicine**

Applications and nominations are invited for the American Cancer Society Edward R. Koger Eminent Scholar Chair in Basic Cancer Research. The successful candidate for this faculty position will hold a Ph.D. or M.D. degree, and she/he will have demonstrated excellence in research on the cellular and/or molecular biology of cancer. This could include cell division cycle control, cytokine action, molecular genetics, chromosomal/chromatin structure, onco gene molecular biology, or other basic research areas holding great promise for fundamental breakthroughs in understanding and controlling cancer. Commitments for laboratory and office space, start-up funding, as well as other re-sources will assure the Koger Scholar's sustained trajectory to international eminence. She/ he can also play a significant role in efforts to build a major cancer research center at the University of Florida. Appointment in an appro-priate department within the College of Medicine will be based upon the candidate's accomplishments and field of interest. The closing date for nomination or application (including Curriculum Vitae, statement of research goals, current funding, and three letters of reference) is July 31, 1992. Address all correspondence to:

Daniel L. Purich, Ph.D., Chairman Koger Scholar Search Advisory Committee **Department of Biochemistry 8** 

Molecular Biology College of Medicine, Health Science Center Gainesville, FL 32610-0245.

(An Equal Opportunity) Affirmative Action Employer)

## Postdoctoral Positions Molecular Toxicology Group

The Biomedical Sciences Division at the Lawrence Livermore National Laboratory has an exciting program to investigate the effects of chemicals on DNA, mutation and cytogenetic endpoints. This is part of a larger program to investigate the cancer and mutation risk posed by chemicals present in the diet and the environment. We are seeking several postdoctoral fellows with recent Ph.Ds, to work as part of an interdisciplinary team of biologists, biochemists, toxicologists, and physicists in the following areas. Appointments will be initially for two years with the possibility for a 1 year extension, depending on funding and project status.

## Metabolism (2)

POSITION A -Successful candidates will be responsible for conducting studies on whole body metabolism, pharmacokinetics, and biointoxification/detoxification pathways of chemical carcinogens. These positions require a Ph.D. in Biochemistry, Toxicology, Pharmacology or related field with experience preferred in metabolite synthesis, radio-isotope tracer studies, pharmacokinetics, and/or animal handling. Some experience with molecular biology or immunoassavs is desirable.

## **Biophysics (1)**

POSITION B -We are seeking an individual with a Ph.D. in biophysics to study the interactions of carcinogens with DNA. Experience in nucleic acid chemistry and quantum chemistry is highly desired.

## DNA and Protein Chemistry (2)

POSITION C - These individuals will conduct studies on the interactions of chemicals with macromolecules, and study the relationships between molecular damage and biological effect. The positions require a Ph.D. in Biochemistry, Toxicology, Pharmacology or related field with experience in DNA adduct analysis, electrophoresis, protein chemistry, mammalian cell culture, animal handling and/or molecular biology.

## Cytogenetics (2)

POSITION D -Applicants for these positions should have a Ph.D. degree or the equivalent in genetics, molecular biology, or a related discipline. The first position requires experience in molecular biology, including DNA cloning and isolation, phage and cosmid library construction, and PCR and nick translation with non-isotopic markers. Candidates with at least some experience in cytogenetics will be preferred. A second position requires experience in cytogenetics, including tissue culture, metaphase chromosome preparation and analysis, and fluorescence in situ hybridization. Candidates with at least some experience in molecular biology will be preferred. Applicants must be able to interact constructively with a large research team and with other research groups. Computer literacy and ability to work with small laboratory animals are also desired.

For further information contact: Drs. James Felton (510) 422-5656 or Ken Turteltaub (510) 423-8152 (Positions A, B, C) or Dr. James Tucker (510) 423-8154 (Position D)

Interested applicants should send their CV indicating position preference to: Phil Harding, Professional Employment, Dept. A92216BS, Lawrence Livermore National Laboratory, P.O. Box 5510, L-725, Livermore, CA 94551. LLNL is an equal opportunity employer. Minority applicants are encouraged to apply.

University of California





## Cyanamid uses novel approaches to discover and develop new therapeutics in parasitology.

At the Agricultural Research Division of American Cyanamid Company, you'll be part of a winning team that has produced 17 new products in 4 years. We have a long-range commitment to discovering ways to increase worldwide crop and livestock production through chemical, biochemical and biological research. This commitment is evidenced by our expanding research budget which has tripled over the last decade.

The following opportunities exist in our Animal Discovery Department and Clinical Development Laboratory, where you will find a dedicated effort to treat and prevent disease, promote growth and improve feed efficiency in livestock and poultry.

## Parasitologist/Protozoologist

The research scientist we seek will administer a program geared toward discovering new anticoccidials/antiprotozoals. We require a PhD with post-doctoral training in protozoology, molecular parasitology, parasite biochemistry or a related discipline. A background in immunology, avian physiology and novel approaches to identifying new therapeutics is desirable. Dept. RHS

## **Research Parasitologist**

The successful candidate will conduct studies on the efficacy of anthelmintics in farm animals. Studies require experience with experimental infections in farm animals and interpretation of results. A PhD in parasitology and at least 2 years' experience in conducting experiments with large animals are required. Dept. KS

American Cyanamid Company offers an excellent compensation and benefits package which includes 401(k) savings plan, flex-time work schedules and a convenient location one hour from New York City or Philadelphia. We invite you to forward your resume, indicating appropriate position code to: Employment Office, American Cyanamid Company, Agricultural Research Division, P.O. Box 400, Princeton, NJ 08543-0400. An Equal Opportunity Employer M/F/H/V.



# Pulmonary Research

Genentech, Inc., a leader in the biotechnology industry, is currently seeking two scientists to join our active pulmonary research program. You'll be involved in new research in the area of obstructive lung disease and in ongoing programs such as the study of aerosolized DNase for the treatment of airway obstruction associated with cystic fibrosis, chronic bronchitis and pneumonia.

## **Pulmonary Scientist**

Join our team of scientific investigators in finding new molecular approaches to the treatment of lung disease.

We're seeking an individual with a PhD or MD and expertise in pulmonary pathology and/or anatomy, animal models of lung disease, and their relation to human diseases, such as emphysema, chronic bronchitis, cystic fibrosis or asthma. A strong interest in molecular mechanisms of lung injury and repair is highly desirable.

## Pulmonary/ Aerosol Pharmacologist or Physiologist

As a member of a multidisciplinary group, you'll be involved in the development of new aerosol treatments of lung disease. A strong interest in the aerosol delivery of proteins, peptides and/or genes is highly desirable.

We require a PhD and expertise in the performance of inhalation studies in experimental animals.

Our progressive company offers an excellent salary and benefits package which includes child care facilities, free health club membership and fully paid medical/dental/vision coverage. Please send your resume to Genentech, Inc., Human Resources, Dept. WS, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal opportunity employment. Women and minorities are encouraged to apply.

# Genentech, Inc.

# SCIENTIST (ASSOCIATE)

Assoc. Scientist will engage in variety of molec. bio. analyses for R&D of new biochem. products. Will exercise tech. discretion in design and execution of collaborative scient. projects. Will per-form complex biochem. research using numerous techniques.

Specific responsib. incl.: investig., creation and devel. of new methods and technologies for project advancement; rendering detailed observations, analyzing data and interp. results of experiments; prep. of tech. reports, summaries, study protocols and quark analyses; project leader on selected projects; train, and/or supervis. personnel; particip. in scient. conferences and contrib. writings to scient. journals.

Appl. must have working knowl. of plasmid prep. and isolation; northern and southern blotting; agarose and polyacrylamide gel electrophoresis; transfection; sizing gel chromatography; quantitation of DNA and RNA; protein separation analysis; DNA sequencing; DNA footprinting and cloning.

Ed. and Exp. Req.: M.S. in Biochem., Molec. Bio, or a related field, with two years of relevant academic or prof. lab exp. In lieu of an M.S., a B.S. in Biochem., Molec. Bio. or a related field, with five years of relevant academic or prof. lab exp., lab exp. in isolation, labeling, sequencing or hybridisation of nucleic acids would be relevant. Salary: \$31,315 per year; Hours 8:30-5:00 M-F.

Mail resume and copy of ad to: Department of Economic and Employment Development, 1100 North Eutaw Street, Room #212, Baltimore, MD 21201. Job Order No. 9149242. JOB LOCA-TION: GAITHERSBURG, MD.

# Senior Research Microbiologist

The Medical Research Division of American Cyanamid has an immediate opening in the Microbiology Group of the Fermentation Development Depart-ment. This group is involved in a num-ber of projects to produce commercially useful compounds for human and ani-mal use. These projects include antibi-otic fermentations in Streptomyces, cloning and expression of recombinant proteins in E.coll and the development of biocatalytic processes for the produc-tion of pharmaceutical intermediates.

tion of pharmaceutical intermediates. The successful candidate will perform laboratory work directed towards the isolation of improved strains and media optimization for antibiotic production through the understanding of metabolic pathways and the regulation of metabo-lism, Familiarity with standard microbi-ological/genetic/biochemical tech-niques such as mutagenesis, bacterial growth studies, and enzyme assays is necessary. A Ph.D. is preferred along with 2-3 years of postdoctoral experi-ence; an MS degree and several years of relevant industrial experience will also be considered. be considered.

We are located in Rockland County, 25 We are located in Rockland County, 25 miles north of New York City. For con-sideration, send your resume with salary requirements to: Professional Employ-ment Representative, Dept. MR, Medical Research Division, Lederle Laboratories, Pearl River, NY 10965.



An Equal Opportunity Employer M/F.

## VICE PRESIDENT FOR SCIENTIFIC AFFAIRS

The Henry M. Jackson Foundation for the Advancement of Military Medicine invites applications for the position of Vice President for Scientific Affairs. The Foundation is a not-for-profit, private corporation which is affiliated with the Uniformed Services University of the Health Sciences (USUHS), a Department of Defense medical university whose primary mission is to provide high-quality, career-dedicated military and public health service physicians and scientists.

The Foundation assists the Uniformed Services University through a variety of programs including support for research and management of endowment funds, special research programs and other projects. It carries out medical research and education programs under cooperative arrangements with the USUHS and provides the focus for interchange for the USUHS with private industry for research and development agreements and for technology transfer programs. In addition the Foundation participates directly with other federal agencies, not-for-profit corporations, universities and private industry to conduct a wide variety of research programs all focused on integration of military and civilian medical science for the advancement of military medicine.

For this position the Foundation is seeking an energetic individual with a broad scientific background and thorough knowledge of university level academics, medical scientific research, technology transfer, and basic and clinical sciences. Applicants must have demon-strated success and proven abilities to work with academic institutions and diverse constituencies, and to communicate effectively with department chairs and faculty, business and industry representatives and government officials. The applicant must possess a doctoral degree in medicine or a related field. Experience and knowledge of inter-institutional cooperative programs and an understanding of the role of medicine and medical science within the military would be advantageous.

The incumbent will serve as the chief scientific officer, Vice President and Deputy Director for the Foundation and will participate fully in the overall planning, management and operations of the Foundation. The selected individual will work with and for the President of the Foundation to foster the goals of the Foundation and will act on behalf of the President in his absence.

Review of applications and nominations will begin on June 1, 1992 and will continue until the position is filled with an anticipated appointment date of August 1, 1992. Applications and nominations should be forwarded by letter with a current Curriculum Vitae and a list of three references to:

> President Henry M. Jackson Foundation for the Advancement of Military Medicine 1401 Rockville Pike, Suite 600 Rockville, Maryland 20852

## **POSITIONS OPEN**

## INTESTINAL CELL BIOLOGIST

The Nemours Research Program of the Alfred I. duPont Institute intends to establish a Gastroenterology Research Laboratory and invites applications for the position of DIRECTOR OF LABORATORY. We are seeking an individual whose interests lie in some aspect of intestinal cell biology/physiology research, preferably with experience using cultured intestinal cell lines. In this position the appointee will pursue his/her own indepen-dent research and also promote collaborative research with existing programs in intestinal cellular energy me-tabolism transport and gastronitestical motifier and tabolism, transport, and gastrointestinal motility and inflammation. The Nemours Research Programs currently include a variety of active programs in several areas of cell and developmental biology.

The Alfred I. duPont Institute is a rapidly growing, multidisciplinary children's hospital and the major pedi-atric teaching affiliate of Jefferson Medical College. Growth of the Gastroenterology Research Program has been occurring in parallel with the development of an ecdemically origented clinical program in andiatric grad academically oriented clinical program in pediatric gas-troenterology and nutrition. The Gastroenterology Divi-sion will be staffed by three full-time physician investigators, along with research technical support, by July 1992.

Interested parties should mail a letter of interest, curriculum vitae, and salary history (required) to: Alfred I. duPont Institute, Research Department, P.O. Box 269, Wilmington, DE 19899, Attention: Research Administration. Applications will be accepted until the contine in filled position is filled.

## **PROGRAM DIRECTOR** NATIONAL RESEARCH INITIATIVE COMPETITIVE GRANTS PROGRAM, UNITED STATES DEPARTMENT OF AGRICULTURE (USDA)

The National Research Initiative Competitive Grants Program (NRICGP), U.S. Department of Agriculture, seeks a qualified scientist to serve as a Program Director for grant review and administration in the area of animal disease research. Candidates must have a D.V.M., Ph.D. or other degree with major study in microbiology, veterinary pathology, physiology, parasitology, virology, veterinary science or a related discipline of biological science. In addition, candidates must have specialized experience.

Closing date is 22 June 1992. For further information on this full-time, permanent position, contact: Dr. Rose-mary R. Grady, NRICGP, Room 323G Aerospace Building, 901 D Street, SW, Washington, DC 20250-2200; telephone: 202-401-6234. For information on application procedures/forms, contact: Ms. Kathy Asmussen, Personnel Staffing Specialist; tele-phone: 202-720-9811. USDA is an Equal Opportunity Employer.

#### THE SCHOOL FOR FIELD STUDIES IN CONJUNCTION WITH NORTHEASTERN UNIVERSITY **RESIDENT FACULTY POSITIONS RESOURCE MANAGEMENT AND** COASTAL ZONE MANAGEMENT

Resident Faculty for full-time teaching positions in Baja, Mexico, and the Caribbean. Teach 30 students per semester in an interdisciplinary case-studies approach. Hands-on field-oriented program. Applicants must have relevant field research experience in the region, excellent undergraduate teaching background, and leadership skills. Ph.D. preferred, M.S. minimum. To apply: Send a detailed letter with curriculum vitae to: **RMS Search**, School for Field Studies, 16 Broadway, Beverly, MA 01915 or FAX: 508-927-5127.

RESEARCH FACULTY POSITION, SCHOOL OF MEDICINE, UNIVERSITY OF WASHING-TON. Prostate, cytokine, and/or penile function physi-ologist. The University of Washington Department of Urology seeks to recruit a Ph.D. fellowship-trained Urology seeks to recruit a Ph.D. relowsnp-trained researcher. Outstanding opportunity to interact with and support ongoing laboratory and clinical research pro-grams. Qualified applicants should submit cover letter and curriculum vitae to: Richard E. Berger, M.D., University of Washington, Department of Urology RL-10, Seattle, WA 98195. The University of Washing-ton is an Evand Opportunity Evandance ton is an Equal Opportunity Employer.

POPULATION BIOLOGIST, BIOSTATISTI-CIAN, MAMMALOGIST. The Department of Biological Sciences at Idaho State University has a nontenure-track position which will be available for 1 to 3 years. Responsibilities include team teaching the human reproduction and demography section of a large, undergraduate nonmajors course each semester, a graduate course in biometry each fall semester, and courses in population biology and mammalogy on alternate years. Previous experience with museum collections is desirable but not required. Opportunities exist to work with M.S., Ph.D., and Doctor of Arts students. Applicants will be expected to hold a doctoral degree. This position will remain open until filled, but applicants should send a letter of application, curriculum vitae, and three letters of reference by 22 June 1992 to: Chairperson, Search Committee, Box 8007, Department of Biological Sciences, Idaho State University, Pocatello, ID 83209. Idaho State University is an Equal Opportunity/Affirmative Action Employer.

VIROLOGIST AT NORTHWESTERN UNI-VERSITY MEDICAL SCHOOL. A tenure-track university FACULTY POSITION is available in the Department of Pathology, offering the opportunity for a career combining a major commitment to academic laboratory medicine and scientific research. The successful candidate can be either an M.D. or Ph.D. who has an active research program and experience in the virology laboratory (including retrovirology). Faculty rank and salary will be commensurate with the candidate's level of qualification and academic development. The position has administrative leadership of a BL-3–level virus research/diagnostic laboratory. The institution has made a major commitment to virology, including but not limited to AIDS. Northwestern University is an NIH Comprehensive AIDS Center and has an active multidisciplinary group of investigators in the discipline of virology. Interested candidates should submit curriculum vitae by 30 June 1992 to: Dr. Dante G. Scarpelli, Chairman, Department of Pathology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611.

Northwestern University is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon the eligibility to work in the United States.

#### HUMAN GENETICS AT THE UNIVERSITY OF UTAH

The University of Utah, Department of Human Genetics, would like to fill a faculty position at the **RE-SEARCH INSTRUCTOR** level. The department would like to recruit a candidate that has a Ph.D. with four or more postdoctoral years of research in molecular genetics of the human. Research experience with a variety of techniques, development of STS-based DNA markers, construction and manipulation of YACs and generation of physical and genetic maps of the human genome. The candidate should further have extensive experience in mapping and cloning of genes causing hereditary disease.

Application deadline will be 1 July 1992. Applications submitted after the deadline may be considered if no qualified candidates have applied by the deadline.

Send curriculum vitae and references to: Dr. Raymond Gesteland, Human Genetics Recruitment Committee, University of Utah, Building 533, Room 2100, Salt Lake City, UT 84112.

The University of Utah is an Equal Opportunity Employer.

FACULTY POSITION (NONTENURE AC-CRUING) DEPARTMENT OF BIOCHEMISTRY. Instructor position is available 1 July 1992 in the Department of Biochemistry, University of Texas (UT) Southwestern Medical Center at Dallas. Nontenure accruing. Must have a Ph.D. degree in biochemistry and a master's of science degree in a biology-related field. Experience in allele-specific oligonucleotide analysis, PCR amplification and bacterial expression of cytochrome P450 in *E. coli*. Additional experience in enzymatic assays for cytochrome P450 and cDNA cloning of mitochondrial and microsomal proteins. Send résumé and names of three references to: Ronald W. Estabrook, Department of Biochemistry, University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235– 9038. UT Southwestern Medical Center is an Equal Opportunity/Affirmative Action Employer.

## **BIOCHEMIST/MOLECULAR BIOLOGIST**

The Cardiovascular Diseases Research Unit of Upjohn Laboratories, a division of The Upjohn Company, has an opening for a biochemist with a strong background in molecular biology. Upjohn Laboratories has made a long-term commitment toward understanding various cardiovascular diseases at the molecular level. Using molecular, cell biological, biochemical and/or biophysical approaches, the successful candidate will develop a research project focused on the role of ion channel (K+ channels in particular) in cardiovascular diseases such as hypertension, arrhythmia, and myocardial ischemia.

This individual will be involved in research efforts aimed at successfully cloning K+ channels that are of therapeutic interest. You will be a member of an interdisciplinary team of scientists in the areas of pharmacology, electrophysiology, cell biology, biochemistry, and chemistry, all interested in exploiting therapeutic opportunities in this scientifically challenging field.

A Ph.D. along with a strong theoretical and experimental background in molecular biology plus 2-3 years post-graduate experience is required. Prior experience in the application of molecular biology techniques to the study of ion channels would be considered a significant plus. An understanding of the oocyte expression system, as well as the electrophysiological techniques used for the assessment of ion channel function would also be highly desirable.

Upjohn offers a very competitive compensation and benefits package in addition to a stimulating, multi-disciplinary research environment at our modern laboratories, located in Kalamazoo, Michigan. Our region provides abundant cultural and recreational pursuits and offers reasonable housing and living costs. For confidential consideration, please forward a curriculum vitae to: The Upjohn Company, Corporate Recruiting/Speciality Code 117, 7000 Portage Street, Kalamazoo, MI 49001-099. Please refer to specialty code #117 in your cover letter. An Equal Opportunity Employer M/F

Our Commitment to Scientific Excellence Continues Logo



## **MOLECULAR BIOLOGIST/BIOCHEMIST**

The Department of Immunology Research is seeking both Ph.D. and Bachelor-level Scientists to join a multidisciplinary group studying receptor biology with particular emphasis on the structure/function relationships for both ligand binding and signal transduction. The goal of the group is to utilize cutting edge science to develop novel therapeutic agents for the treatment of inflammatory and autoimmune disorders.

**Senior Research Scientist** – The positions require a Ph.D. or M.D. or equivalent with at least 2 years of postdoctoral experience and a proven record of original research. Relevant experience in protein biochemistry and/or molecular biology as they pertain to structure/function relationships is highly desirable, as is a background in signal transduction.

**Staff/Research Scientist** – Applicants should have an M.S./B.S. or equivalent with substantial laboratory experience. Preference will be given to candidates with a strong background in molecular biology with emphasis on cloning, mutagenesis, and expression, or in biochemistry with emphasis on protein purification and characterization.

These are excellent opportunities for motivated and creative individuals to continue their scientific growth and development. Publication and internal and external collaborations are actively encouraged.

Merck Research Laboratories is located in Rahway, New Jersey approximately 25 miles from New York City. Our salaries, benefits and growth potential are excellent. For consideration, please send your resume with the names of 3 references to Susan F. Marsella, Ad#120, Merck & Co., Inc., R80-A3, P.O. Box 2000, Rahway, NJ 07065. An EEO/AA/VH Employer.



#### UNIVERSITÉ DE MONTRÉAL TERRESTRIAL VERTEBRATE ECOLOGY

The Département de sciences biologiques of the Faculté des artes et des sciences, invites applications for a tenure-track position in terrestrial vertebrate ecology, preferably mammalian ecology. Functions: the success-ful candidate will be expected to be able to teach courses in French at the undergraduate and graduate levels, to supervise graduate students, and to carry out an active research program. Preference will be given to candidates who would be able to use the facilities of the Station de biologie des Laurentides. Requirements: candidates should have a Ph.D. in a relevant field and postdoctoral or equivalent experience. Salary: based on current contract agreements. Appointment date: the position begins 1 June 1993. Interested applicants should submit curriculum vitae, two copies of five representative reprints or preprints, and three letters of reference before 31 August 1992 to: M. Raymond McNeil, directeur, Département de sciences biologiques, Université de Montréal, C.P. 6128, succursale A, Montréal (Québec), H3C 3J7. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents (0078).

POSTDOCTORAL POSITION—BIOMOLEC-ULAR SIMULATION. Participate in the development and application of sensitivity analysis methods to studying biomolecular structure-function relationships. Experience in modeling and simulation of chemical and biomolecular systems, FORTRAN programming and computational work are advantageous, but candidates with different backgrounds will be considered. Please send résumé and three letters of recommendation to: Dr. Chung F. Wong, Department of Physiology and Biophysics, Box 1218, The Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029–6574. Affirmative Action/Equal Opportunity Employer.

## Calendar of Upcoming Meetings

SCIENCE will be distributed to scientists attending the following meetings:

HPLC 14 to 19 June 1992, Baltimore Issue date: 5 June 1992

Protein Society 25 to 29 July 1992, San Diego Issue date: 10 July 1992

Science Innovations 21 to 25 July 1992, San Francisco Issue date: 17 July 1992

Electron Microscopy Society of Am. 17 to 20 August 1992, Boston Issue date: 31 July 1992

Your classified ad will enjoy BONUS DISTRIBUTION at these events. Deadline for line classified ads: 15 days prior to issue date at 10:00 a.m. Call for display ad deadlines.

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## **POSITIONS OPEN**

**POSTDOCTORAL POSITION** available immediately to study mucosal immunity and host resistance to *E. coli* urinary tract infection. Studies on antibody production in the urogenital tract and vaccine development will be pursued. Candidates should have a recent Ph.D. and a strong background in microbiology, immunology, and bacterial antigen purification. Send curriculum vitae, names and addresses of three references, and a description of research interests to: Dr. Walter J. Hopkins, Department of Surgery, 600 Highland Avenue, Madison, WI 53792.

## POSTDOCTORAL POSITION

A postdoctoral position is available immediately with the USDA Forest Service to participate in an effort to develop a nuclear gene diagnostic assay for differentiation of strains of the gypsy moth, *Lymantria dispar*. A background in molecular biology with experience in gene cloning and sequencing is desirable. Starting salary at \$32,423 per annum plus benefits. U.S. citizenship is required. Send curriculum vitae and the names and addresses of three references to: Dr. James Slavicek, USDA Forest Service, 359 Main Road, Delaware, OH 43015. The USDA is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION in cancer biology. Available immediately to study the role of inflammation (macrophages, natural killer cells, cytokines, reactive oxygen, nitric oxide, eicosanoids) in mammary tumor progression and metastasis. Experience with tumor biology, molecular biology or immunology preferred. Send curriculum vitae and names of three references to: Dr. Amy Fulton, Department of Pathology, University of Maryland School of Medicine, 10 South Pine Street, Baltimore, MD 21201. An Equal Opportunity Employer.

**POSTDOCTORAL POSITIONS.** Available in Departments of Anatomy, Biochemistry, Molecular and Cellular Biology, Microbiology and Immunology, Pharmacology, and Physiology. Applicants must have a Ph.D. or M.D. degree. Positions available during 1992 and 1993. Closing date: 31 December 1992 or until positions are filled. Women and minorities are urged to apply. Send applications to appropriate department head: The University of Arizona, Arizona Health Sciences Center, Tucson, AZ 85724. An Equal Opportunity/Affirmative Action/Title EX/Section 504 Employer.

#### POSTDOCTORAL ASSOCIATE

A postdoctoral position is available to study early development in Xenopus laevis. Possible projects include the analysis of transcription and translation factors as well as developmentally regulated protein localization. Please send résumé including names, addresses, and telephone numbers of three references to: Dr. Joel D. Richter, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545. An Affirmative Action/Equal Opportunity Employer M/F/H.

#### POSTDOCTORAL POSITION YALE MEDICAL SCHOOL

Position available immediately to study the mechanism and regulation of recombination in mammalian cells, with emphasis on characterization of molecules involved in immunoglobulin class switch recombination [Genes Dev. 5, 2353 (1991); Proc. Nat. Acad. Sci. U.S.A. 89, 4154 (1992)]. Please send curriculum vitae and names of three references to: Dr. Nancy Maizels, Department of Molecular Biophysics and Biochemistry, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.

POSTDOCTORAL POSITION. NIH-funded training grant, restricted to U.S. citizens or permanent residents, for M.D.'s and Ph.D.'s to train in molecular virology. Trainces can work with faculty in the Medical School, Dental School, or Veterinary School at the University of Pennsylvania, or at the Wistar Institute. Emphasis is on herpes viruses and human retroviruses. Send curriculum vitae and references to: Harvey Friedman, M.D., Infectious Disease Division, 536 Johnson Pavilion, University of Pennsylvania, Philadelphia, PA 19104–6073. Equal Opportunity/Affirmative Action Employer.

## **POSITIONS OPEN**

#### POSTDOCTORAL POSITION

Available immediately for Ph.D. in biochemistry/pharmacology/molecular biology to work in a collaborative research program in the general field of hemecytochrome P450 biology. Send curriculum vitae to: Professor A. Kappas, Rockefeller University, 1230 York Avenue, New York, NY 10021, or Professor N. G. Abraham, Department of Medicine, New York Medical College, Valhalla, NY 10595.

#### POSTDOCTORAL POSITION MOUSE DEVELOPMENT

Postdoctoral position available July 1992 to study function and regulation of homeobox genes in mouse craniofacial and neural development. Experience in production of transgenic mice desirable. Send résumé and names of three references to: Dr. Robert Maxson, Kenneth R. Norris Cancer Hospital and Research Institute, University of Southern California School of Medicine, 1441 Eastlake Avenue, Los Angeles, CA 90033.

POSTDOCTORAL POSITION available in Neuroendocrinology.

Applications are invited from persons with a Ph.D. and/or M.D. for research with a neuroendocrine group investigating the roles played by neuropeptides in central disorders and in small-cell carcinoma. *Position restricted to* U.S. citizen or resident. Send curriculum vitae and three letters of reference to: Dr. William G. North, Department of Physiology, Dartmouth Medical School, Borwell Building, Lebanon, NH 03756. *Dartmouth College* is an Equal Opportunity Employer.

POSTDOCTORAL POSITION to study central neural control of the respiratory and cardiovascular systems. Applicant should have experience in extracellular or intracellular recording. Please send application letter, curriculum vitae and names of three references to: Ann C. Bonham, Ph.D., Department of Internal Medicine, Division of Cardiovascular Medicine, University of California, Davis, Davis, CA 95616.

POSTDOCTORAL TRAINING IN NEURAL PROCESSES IN COGNITION. The National Science Foundation has newly established an interdisciplinary program investigating the neurobiology of cognition utilizing neuroanatomical, neurophysiological, and computer simulation procedures. Individuals perform original research investigating cortical function at multiple levels of analysis. State-of-the-art facilities include: computerized microscopy, human and animal electrophysiological instrumentation, behavioral assessment laboratories, brain imaging, the Pittsburgh Supercomputing Center, and access to human clinical populations. This is a joint program between the University of Pittsburgh, its School of Medicine, and Carnegie Mellon University. Applications are encouraged from individuals with interest in biology, psychology, engineering, physics, mathematics, or computer science. Applicants must be permanent U.S. residents. Application deadline is 20 June 1992. For information contact: W. Schneider, Program Director, Neural Processes in Cognition, University of Pittsburgh, 3939 O'Hara Street, Pittsburgh, PA 15260; telephone: 412-624-7061. E-mail: NEUROCOG@PITITVMS.BITINET.

POSTDOCTORAL POSITION available immediately to study the role of cytokines in Epstein-Barr virus-associated lymphoproliferations in organ transplant recipients. Knowledge of immunology and techniques in molecular biology is desired. Send curriculum vitae, statement of research interests and names of three references to: Michael A. Nalesnik, M.D., Division of Transplantation Pathology, Room E1515 Biomedical Science Tower, University of Pittsburgh School of Medicine, Pittsburgh, PA 15213. The University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer.

## Science

can publish YOUR LOGO with your one-column line classified ad. No extra fee is assessed: you will be billed at our regular line rate for the number of lines the logo occupies. For details, call Classified Advertising: 202-326-6555.

## **Molecular Biologist Regulation of Gene Expression**

The PARKE-DAVIS Pharmaceutical Research Division of Warner-Lambert Company has fostered an innovative and exciting environment for discovery research. A critical component of this effort is the constant push to look forward for new therapeutic advances. In this regard, we are committed to exploring the role of gene expression in the pathophysiology of human disease. We seek a research scientist interested in the hormonal regulation of gene expression to join our new Signal Transduction Department.

This scientist will initiate and direct a research effort to study the basic mechanisms involved in the expression of proteins that are disregulated in diseases such as diabetes, inflammation and cancer. The scientist will join a highly interactive and creative group focused on intracellular signalling for peptide hormones and growth factors. The successful candidate should be an energetic and productive molecular biologist, with a Ph.D. degree and at least 3 years of postdoctoral experience as well as a proven record of accomplishment

Our modern facilities are located adjacent to the University of Michigan campus. Excellent compensation and benefits are only a part of the package. Our dynamic and challenging research environment offers ample opportunities for personal and professional creativity and growth. If you are qualified and wish to be considered, please send a curriculum vitae and list of references in confidence to Human Resources Department, Box JDM- 91024, PARKE-DAVIS Research Division, Warner-Lambert Company, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment"

"Equal Opportunity in Action"



## **Geisinger** Clinic

## Postdoctoral Position

Position available in the laboratory of Dr. John Krupinski at the Weis Center for Research in Danville, PA. The successful applicant will have a Ph.D. in biochemistry, cell biology, or pharmacology with experience in molecular biology. The project will involve the expression and characterization of novel forms of adenylyl cyclase. Emphasis will be placed on determining those structural features of the adenylyl cyclases responsible for mediating unique physiological effects.

The Weis Center is a well-equipped, modern research facility in a semirural environment. Competitive salary and fringe benefits are available. Please send cirriculum vitae with the names and telephone numbers of three references to: Human Resources (JK), Geisinger Clinic, 100 N. Academy Avenue, Danville, PA 17822-3024.



# We're More Committed Than Ever To New Drug **Discovery.**

Abbott Laboratories' leadership in the development of new pharmaceutical products has resulted in 20 consecutive years of growth. Now, fueled by last year's 18% increase in R&D spend-ing, you could join us and support our vital research efforts.

## **BIOCHEMIST/PHARMACOLOGIST Immunosciences Research**

Working within the Immunosciences area of our New Drug Discovery Group, the candidate we select will contribute to research involving inflammatory mediators. A PhD is required, as is experience in HPLC, lipid biochemistry, immunoassays and leukocyte cell biology. You must also be capable of supervising assistants and working closely with associates on a large, successful multi-disciplinary team.

Abbott provides an excellent salary and benefits package including profit sharing and a stock retirement plan. We are located in an attractive suburban setting, approximately 30 miles north of Chicago. For confidential consideration, please forward a resume and salary history to: Patricia Handy, Corporate Placement, Job # 53540, Abbott Laboratories, One Abbott Park Rd., Abbott Park, IL 60064. Abbott is an Affirmative Action Employer/Smoke-Free Environment.





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worth 50,000 Swiss Francs, will be awarded by the International Association of Gerontology at the XVth International Congress of Gerontology, Budapest, 4-9 July 1993.

Applications and nominations should be submitted not later than

## 15 October 1992

to John L. C. Dall, MD, Official Coordinator for the SANDOZ PRIZE, The Victoria Infirmary, Glasgow G42 9TY, United Kingdom (phone 44 41-649 4545, fax 44 41-649 2206).

Information can be obtained from this office and from any SANDOZ PHARMA company. (PROOF)



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## Senior Scientist

In this critical and highly visible position, responsibilities will include development of new automated assays for seriological diagnosis of infectious diseases. This individual will also lead a small group of scientists in these efforts.

The ideal candidate will have a PhD in Biochemistry, Immunology or Microbiology, plus post doctoral experience and 1-3 years experience in immunoassay development (preferably in infectious diseases). A Master's degreed candidate must have 5-7 years experience in immunoassay development. Supervisory experience preferred.

## Senior Immunochemist

We are seeking an innovative and independent immunologist/biochemist to develop immunoassays for monitoring emerging therapeutic technologies. This position will combine all aspects of diagnostic assay development including identification of suitable antibodies, protein modification, optimization of the assay to maximize clinical utility, formulation, clinical evaluation and transfer to production.

Background required for this position includes a PhD plus 2 years, or equivalent experience in Immunology and/or Biochemistry. Strong analytical skills also required and knowledge in diagnostics development, organic chemistry and clinical chemistry is preferred.

We offer an excellent salary and benefits package, along with a wonderful work environment. Please send your resume with salary history, to: Syva, Dept. SWH3, 3403 Yerba Buena Road, P.O. Box 49013, San Jose, CA 95161-9013. Or, you may FAX your resume to: (408) 239-2516. Principals only, please. Syva is an equal opportunity employer committed to the values of a diversified workforce.



# **Analytical Chemists**

Battelle, Pacific Northwest Laboratories (PNL), is an international leader in the practical application of technology. Battelle PNL is dedicated to finding ways to preserve our environment and keep America technologically competitive.

Our Analytical Chemistry Laboratory is a service oriented laboratory organization. We are committed to providing our clients with high quality, timely analytical results. We have immediate openings for two experienced Analytical Chemists.

The ideal candidates will have experience in a service laboratory environment, technical bench chemist experience with some program management experience, and experience with EPA requirements.

These positions require a Bachelor's degree in Chemistry; a Master's degree in Chemistry preferred. Candidates must have three or more years of experience in inorganic analytical techniques with instrumentation such as ICP, IC, AA (flame, GFAA, CVAA), and UV/Vis. Candidates must also have experience in CERCLA/CLP, RCRA SW846, and/or NPDES. Must have excellent computer skills including experience with spreadsheets, word processors, and data bases. IBM or compatible experience is preferred. Must have good verbal and written communication skills with specific experience in formal report writing.

Battelle PNL is located in Richland in Southeastern Washington state. You'll enjoy the advantages of small town living and a wide variety of outdoor recreational opportunities. Interested candidates should send a resume to: Battelle Recruiting Center, P.O. Box 1406, Dept. 6177BAH, Richland, WA 99352. Principals Only. EOE.





# RESEARCH SCIENTIST II Virology/Biochemistry

Exploring and testing your analytical and intuitive abilities is what a scientific career is all about. And Burroughs Wellcome Co. can give you those opportunities. We are at the fore-front of important new pharmaceutical developments, with a long record of successes. That means you can have the resources and support to do your best work, and make a meaningful difference. Discover your capabilities at Burroughs Wellcome Co.

The Division of Molecular Genetics and Microbiology has need of a scientist to perform enzymology, biochemistry and tissue culture studies in collaboration with other scientists to elucidate the mechanism of action of candidate antiviral agents.

Candidates need a Ph.D. degree in biochemistry or microbiology and experience with enzyme mechanism studies, tissue culture techniques, and biochemical analytical techniques. Candidates selected for interview will take an on-site writing assessment. Other factors to be considered include HPLC and DNA recombinant techniques and experience extrapolating from the literature.

Burroughs Wellcome Co. offers competitive salaries and comprehensive benefits. We also offer the advantage of working in North Carolina's celebrated Research Triangle Park, one of the country's leading areas for scientific research, with the cultural and recreational opportunities of the Raleigh/Durham/Research Triangle area nearby. To apply, please send your resume, indicating position number in your cover letter, by June 22, 1992, to: Burroughs Wellcome Co., Recruiting & Staffing, Pos.#63833-20, 3030 Cornwallis Road, Research Triangle Park, NC 27709.

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## RESEARCH SCIENTIST/ POSTDOCTORAL FELLOW (Molecular Biologist)

The Laboratory of Cellular Development and Oncology, National Institute of Dental Research, seeks an outstanding candidate with graduate education and/or experience in Biochemistry and Molecular Biology for a senior postdoctoral fellowship position. Applicants should have at least 2 years postdoctoral training and research experience in signal transduction as well as mechanisms of action through non-receptor and receptor-tyrosine kinases. Additionally, the applicant should be familiar with nuclear medicine principles and radiation protection, radioreceptor binding assays, enzymology, protein purification, tissue culture techniques including biological assays for mitogens and transforming genes, expression of cloned genes in mammalian cells and the use of recombinant retroviral vectors. A substantial record of publications of original work in these areas is required. Starting salary will be commensurate with qualifications and experience. Interested candidates should submit a curriculum vitae, several reprints, summary of research interests and names of three references no later than June 30, 1992.

Material should be sent to: Faye M. Harbrant, Personnel Management Specialist, National Institute of Dental Research, National Institutes of Health, Bldg. 31, Room 2C23, 9000 Rockville Pike, Bethesda, MD 20892.

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The individual will perform project work related to CPDMS Kinetics calculations development and support, chromatography data integration with CPDMS and graphical data interface.

Background must include a BS degree in Computer Science, Chemistry, or Biology with a minimum of 4-6 years direct computing experience, or a MS degree or PhD and 2-4 years experience. Candidates should have experience in a Laboratory Automation environment specifically with VMS based Chromatography data systems, preferably VG's Multichrom. Previous experience with VAX/VMS and relational database including Forms programming required, ORACLE preferred. A demonstrable working knowledge of either "C" or FORTRAN is a must; bench chemistry and analytical methodology experience is a plus.

Join Glaxo and enjoy an excellent salary, flexible benefits, an on-site recreation and fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction. Equally appealing is our world famous scientific, industrial and academic community in Research Triangle Park, NC. Send your resume and salary history to: Human Resources Department, Job #3646B004-SC, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709. (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/H/V.



CELL-CELL AND CELL-MATRIX INTERAC-TIONS IN LUNG: POSTDOCTORAL POSI-TIONS are available to investigate regulation of lung cell growth and differentiation. Research is focused on reciprocal epithelial cell-mesenchymal interactions. Candirocal epithelial cell-mesenchymal interactions. Candi-dates should be highly committed to an independent research career; experience in methods of cell biology and/or molecular biology is desirable. Highly qualified individuals may apply by sending curriculum vitae, a statement of career goals, and names of three references to: D. Bugene Rannels, Ph.D., Department of Cellu-lar and Molecular Physiology, Pennsylvania State University College of Medicine, P.O. Box 850, Her-shey, PA 17033. The Pennsylvania State University is an Eaual Omortunity/Affirmative Action Employer. Women Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

Applications are invited for **POSTDOCTORAL PO-SITIONS** in the Department of Experimental Pathology. Applicants must have an M.D. and/or Ph.D. degree or the equivalent to be considered. Applicants should have documented record of research experience in mo-lecular biology and an interest in cardiovascular biology. Interested applicants should send their curriculum vitae to:

> Michael B. Stemerman, M.D. Professor Department of Experimental Pathology Basic Science Building New York Medical College Valhalla, NY 10595 Telephone: 914-993-4148 FAX: 914-993-4679

## POSTDOCTORAL POSITION DEPARTMENT OF MEDICINE HARVARD MEDICAL SCHOOL

A postdoctoral position is available for a recent Ph.D. to join a multidisciplinary laboratory studying the control of blood cell differentiation, including the molecular biology and biochemistry of hematopoietic growth factors and their mechanism of action. Experience with molecular biological and/or protein biochemical techniques is required.

Send curriculum vitae, statement of research interests and names of three references to: Arthur J. Sytkowski, M.D., Laboratory for Cell and Molecular Biology, New England Deaconess Hospital, Harvard Medical School, 185 Pilgrim Road, BURL Building, 5th Floor, Boston, MA 02215.

POSTDOCTORAL POSITIONS. Integrins and signal transduction. Positions available immediately for individuals with interest in cell interactions and a strong background in protein phosphorylation or in molecular biology. Send curriculum viae and names of three references to: Dr. R. L. Juliano, Department of Phar-macology, University of North Carolina-Chapel Hill, Chapel Hill, NC 27599-7365. An Equal Opportunity/ Affirmative Action Employer.

**POSTDOCTORAL POSITION** available to study the cellular metabolism and physiological function of prion proteins. These proteins are components of the unconventional infectious agent responsible for several neurodegenerative diseases in humans and animals, in-Creutzfeldt-Jakob disease, kuru, and scrapie. cluding ` Experience in cell biology, biochemistry, or molecular biology required. Please send curriculum vitae, a statement of research interests and experience, and the names and addresses of three references to: Dr. David A. Harris, Department of Cell Biology and Physiology, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, MO 63110. An Equal Opportunity Employer.

POSTDOCTORAL POSITION. BELUGA WHALE POPULATION GENETICS, available immediately to conduct research into the stock structure of beluga whale populations. Candidates should have expe-rience in sequencing mitochondrial DNA, investigating variability of nuclear DNA, and analyzing molecular population genetics data. Ph.D. or equivalent required. Send applications, including curriculum vitae, publica-tions list, selected reprints, and names and addresses of two professional references, to:

Dr. James W. Clayton Canada Department of Fisheries and Oceans 501 University Crescent Winnipeg, Manitoba, Canada R3T 2N6 FAX: 204-984-2403

#### **POSITIONS OPEN**

POSTDOCTORAL POSITION to study the prion protein and its association with transmissible encephalopathies in animals. Experience in protein biochemistry required as well as interest in neurobiology. Please send curriculum vitae and names of three references to: Dr. R. F. Marsh, Department of Animal Health and Biomedical Sciences, University of Wisconsin-Madison, 1655 Linden Drive, Madison, WI 53706. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL ASSOCIATE—MOLECU-LAR CARDIOLOGY. Available immediately, to study molecular mechanisms of gene expression in cardiac tissue and cardiac cells. Please send curriculum vitae and names of three references to: Mahboubeh Eghbali, Pharm.D., Ph.D., Department of Anesthesiology, Yale University School of Medicine, 333 Cedar

Street, New Haven, CT 06510. Yale University is an Affirmative Action Employer and provides Equal Opportunities to all applicants.

POSTDOCTORAL FELLOW: CARDIOVAS-CULAR PHYSIOLOGY, TULANE UNIVERSITY. Position available for Ph.D. or M.D. with experience in cardiovascular autonomic physiology to assist in the development of a research project pertaining to auto-nomic regulation of the electrophysiologic properties of the neonatal heart. Experience with cardiovascular research using animal models and physiologic monitoring systems are essential. Experience in autonomic nervous system physiology highly desirable. Send curriculum vitae and names of three references to: Arthur S. Pick-off, M.D., Director, Pediatric Cardiology Section, Tulane University Medical Center, 1430 Tulane Av-erve New Orleage LA 20112 enue, New Orleans, LA 70112.

POSTDOCTORAL FELLOW, NIH STIPEND depending on years since doctoral degree. Should have training in Northern, Southern blots and in situ hybridization. PCR desirable. To be applied to interdisciplinary project concerning endothelial pathophysiology of cere-bral microcirculation and endothelial-smooth muscle interaction. Both intact vessels and cultured cells will be used. Work may expand to include receptor analysis. Work can begin between 1 July 1992 and 1 July 1993. Funding will last at least 2 years. Forward curriculum vitae and three references to: William Rosenblum, M.D., Medical College of Virginia–Virginia Com-monwealth University, Box 17, MCV Station, Rich-mond, VA 23298–0017. FAX: 804-225-3299. Virginia Commonwealth University is an Equal Opportunity/ Affirmative Action Employer. Minorities and women are encouraged to apply.

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The Employment Exchange will take place at the **AAAS** Pacific Division Meeting, 21–24 June 1992, at the University of California, Santa Barbara campus; followed by **Science Innova-**tion '92, 21–24 July 1992, at the Moscone Convention Center in San Francisco, California. Thousands of scientists in various disciplines have been invited to participate. Act fast and you can reach this unique pool of candidates.

For more information on how you can interview candidates on-site please refer to the 8 May 1992 issue of Science, or contact Jacquelyn Roberts at (202) 326-6737, FAX: (202) 842-1065.

## **POSITIONS OPEN POSTDOCTORAL ASSOCIATE**

Harvard-MIT Division of Health Sciences and Technology seeks an individual to work on the development of systems for the sustained growth and regeneration of skeletal tissue. This work involves developing methods and techniques for cell culture of skeletal tissue and for development of innovative method using polymer mate-

rials for use as tissue supports. **REQUIREMENTS**: Ph.D in biology, chemistry, chemical engineering or related field. Must be versed in areas of tissue/organ culture or synthetic biomaterials technology

technology. Interested candidates should send two copies of both cover letter and résumé referencing Job No. C92-012 to: Dr. Cato Laurencin, c/o MIT Personnel Office (E19-239), 77 Massachusetts Avenue, Cambridge, MA 02139-4307. MIT is an Equal Opportunity/Affirmative Action Employer. MIT is a non-smoking environment.

## POSTDOCTORAL FELLOW MEMBRANE RESEARCH

Position available immediately to study the use of liposomes and lipid-based systems to deliver defensins for the treatment of opportunistic in-fections. This position requires a Ph.D. in physical chemistry, biochemistry, biology, or related discipline with a background in liposomology, membrane biophysics or lipid physical chemis-try. Send curriculum vitae and three references to: Human Resources, The Liposome Com-pany, Inc., One Research Way, Princeton, NJ 08540. An Equal Opportunity Employer.

#### POSTDOCTORAL FELLOW OR **RESEARCH SCIENTIST**

Applications are invited for a Ph.D. or equivalent to join a laboratory effort devoted to the understanding of cell and molecular biology of epithelial cells. Of particular interest are the mechanisms involved in the regulation of ion transport in normal cells and in cells derived from models of hypertension. The successful applicant will be expected to develop research projects within an interdisciplinary framework. Salarv and title commensurate with experience

Please send curriculum vitae and a letter describing interests and accomplishments to: John B. Stokes, M.D., Director, Division of Nephrology, Department of Internal Medicine, University of Iowa, Iowa City, IA 52242.

The University of Iowa is an Equal Opportunity Employ-er/Affirmative Action Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL RESEARCH ASSOCIATE

The Minority Center for Toxicological Research is accepting applications for a position of postdoctoral research associate

Qualifications: Ph.D. in toxicology, biochemical phar-macology, or comparable field with training experience in neurobehavioral toxicology/pharmacology. The project is designed to investigate the role of central dopami-nergic receptors in neurobehavioral toxicity of Pb. Sala-ry: \$30,000 per year. (Availability contingent upon funding of a grant.) Send detailed résumé with letter of interest to:

Dr. Arun L. Jadhav

Assistant Dean for Research & Graduate Education College of Pharmacy & Health Sciences Texas Southern University

3100 Cleburne Street Houston, TX 77004 Telephone: 713-527-7557

POSTDOCTORAL RESEARCH ASSOCIATE positions available in active laboratory devoted to study of cell adhesive receptors and their extracellular matrix ligands. Areas of special interest include regulation of adhesive receptor expression during development and differentiation, role of altered receptor expression in the invasive and metastatic behavior of tumor cells, and definition of receptor recognition sequences present in matrix molecules. Previous experience in molecular biology and/or protein and peptide chemistry required. Respond with curriculum vitae and two letters of recommendation to: Dr. Samuel A. Santoro, Department of Pathology, Box 8118, Washington University School of Medicine, St. Louis, MO 63110. Equal Opportunity/ Affirmative Action Employer.

# **D**IRECTOR OF MEDICAL RESEARCH

Marshfield Clinic, a 400-physician multispecialty notfor-profit group practice, is seeking a M.D. or Ph.D. Director for its expanding Medical Research Foundation. Experience in medical research plus management and excellent communication skills are required. The Director is responsible for the planning, development, implementation and evaluation of basic and applied clinical research programs. He or she reports directly to the President of the Marshfield Clinic.

Founded in 1959, the Research Foundation has grown significantly and currently includes five complete Basic Science Research Laboratories, the Department of Epidemiology and Biostatistics, the National Farm Medicine Center, the Rural Health Research Center, ongoing clinical research projects and other areas of study. This outstanding opportunity is located in one of the Midwest's best small cities.

Send curriculum vitae with cover letter to:



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William O. Myers, M.D. Chairman Search Committee 1000 North Oak Avenue Marshfield, WI 54449

# MARSHFIELD CLINIC

#### Center for Synchrotron Radiation Research and Instrumentation is seeking a

## STRUCTURAL BIOPHYSICIST

A position in structural biophysics in the Department of Physics at Illinois Institute of Technology will be open in Fall 1992. It is anticipated that the initial appointment will be at the Research Assistant/Associate Professor level with conversion to a tenuretrack faculty position after two years. We are seeking an experienced Ph.D. macromolecular crystallographer with interest in the development and use of synchrotron facilities for diffraction studies.

IIT, through its Center for Synchrotron Radiation Research and Instrumentation, will be responsible for the development of several synchrotron beam lines at the Advanced Photon Source currently being constructed at Argonne National Laboratory near Chicago. The successful candidate will work closely with the Center staff on the development of two beam lines for the Industrial Macromolecular Crystallography Association (IMCA), a consortium of twelve major chemical and pharmaceutical companies. Upon commissioning of the beam lines, it is anticipated that this faculty member will become the Director of IMCA operations at the Advanced Photon Source.

Illinois Institute of Technology, founded in 1890, is a private technological university located in south-central Chicago. The Department of Physics has strong research programs in biophysics, condensed matter physics, elementary particle physics and materials science, and offers bachelor's, masters, and doctoral degrees.

To apply, please send a curriculum vitae and publication list to:

Professor P. W. Johnson, Chairman Department of Physics Illinois Institute of Technology Chicago, IL 60616 USA

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## POSTDOCTORAL ASSOCIATE POSITIONS THE UNIVERSITY OF IOWA

Please contact the appropriate department to express your specific interest:

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ANESTHESIA—John H. Tinker, M.D., Professor and Head.

**BIOCHEMISTRY**—Alan G. Goodridge, Professor and Head, Bowen Science Building.

**DERMATOLOGY**—John S. Strauss, M.D., Professor and Head; or Kenzo Sato, M.D., Professor; 2 Boyd Tower, General Hospital. A postdoctoral research associate for the study of electrophysiology of cultured cells.

**INTERNAL MEDICINE**—Openings available in all disciplines in the Internal Medicine Department, College of Medicine, University of Iowa. Contact Francois M. Abboud, M.D. Professor and Head; or Darris Goerdt, Administrator. Phone 319/356-2850.

**MICROBIOLOGY**—Dr. J. Markovetz, Professor and Acting Head, Bowen Science Building.

**NEUROLOGY**—Postdoctoral associate positions are available in Cognitive Neuroscience, Neurophysiology, Neurobiology, Cerebrovascular Disease, Epilepsy, Sleep, and Neuromuscular Diseases. Antonio R. Damasio, M.D., Professor and Head, 2151 Roy Carver Pavilion.

**PATHOLOGY**—Dr. Richard G. Lynch, Professor and Chairman, 144 Medical Laboratories. Research activity in all areas of pathology.

**PEDIATRICS**—Dr. Frank H. Morriss, M.D., Professor and Head. **PHARMACOLOGY**—Dr. P. Michael Conn, Chairman and Head, Bowen Science Building. Openings available in all areas of pharmacology and toxicology.

A Ph.D. or equivalent is required. Desirable qualifications are based on Project Investigator's interest for research. Women and minorities are encouraged to apply. The University of Iowa, College of Medicine, Iowa City, Iowa, 52242, is an Equal Opportunity/ Affirmative Action Employer.

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Ph.D. with 0-3 years of industrial experience in blochemistry. This position will require demonstrated expertise in molecular biology and in one or more of the following areas: protein purification, cell culture, protein expression, or bacterial fermentation.

**Biochemist:** 

#### Position Number 102

MS with 1-5 years of strong laboratory background in protein purification. Working knowledge of recombinant DNA techniques and enzyme assay development is highly desirable.

#### Microbiologist:

Position Number 103

MS with 1-5 years of experience in microbial fermentation. Expertise in bacterial physiology or cell culture is required. Experience in optimization and process development focusing on protein expression is a plus.

#### Pel-Freez,

A 1 CC 2., a leading and diversified biotechnology company, is headquartered in Northwest Arkansas. The Rogers facilities are 4 miles from beautiful Beaver Lake with over 500 miles of scenic shoreline. We offer a unique blend of biotechnology excellence and a high quality of life. For consideration, send C.V. or resume and salary history to: Human Resources Dept/BP, Pel-Freez Corporate Offices, P.O. Box 68, Rogers, AR 72757-0068. Please include position number. EOE

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## Molecular/Cell Biologist

With this position we are setting up a molecular biology capability to complement our biochemical and biophysical research efforts on signal transduction in eukaryotic cells. An idea of the broad scope of the research possibilities can be gained from some of our recent publications: *Science* (1989) 246:243; *P.N.A.S.* (1990) 87:4007; *Curr. Opin. Struct. Biol.* (1991) 1:647; *J. Neurosci.* (1992) 12:773; *J. Immunol.* (1992) 138:2040.

A PhD and approximately 3 years of pre- or post-doctoral experience applying recombinant DNA methodology to eukaryotic cells are required. Respond to Dept. MCB.

## **Product Applications Scientist**

Responsibilities will include designing and executing experiments on the Cytosensor™ Microphysiometer system to demonstrate the utility of this technology within the pharmaceutical industry.

Experiments will include studies with excitatory amino acids, growth factors, ion channels, brain slices, peptide hormones and signal transduction probes. Other responsibilities will be analyzing specific specimens and cell samples from prospective Cytosensor customers; presenting the Cystosensor technology and products; attending scientific meetings and trade shows; and providing support for customer training, equipment installation and customer follow-up. Up to 30% travel required.

A PhD in Pharmacology and/or Physiology and the following experience required: 1+ years' post-doctoral in Neurosciences, Neuropharmacology and/or Neuroimmunology; 1+ years' pharmaceutical industry experience in Neuropharmacology. Teaching experience desirable. Evidence of independent research and scientific publications mandatory. Respond to Dept. PAS.

Molecular Devices offers a competitive compensation and benefits package. Please send your resume, indicating appropriate Dept. Code, to Molecular Devices Corporation, Attn: Professional Staffing, 4700 Bohannon Drive, Menlo Park, CA 94025. Principals only, please. EOE.



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# SCIENTIST

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# PROTEIN FORMULATION SCIENTIST

You will design and perform experiments, ultimately to develop liquid and lyophilized proteins which are stable, pharmaceutically acceptable and clinically compatible. Additionally, you will optimize formulation processes such as lyophilization cycles and filtration for maximum throughput.

Requires a PhD in Biochemistry or equivalent and 1-2 years' postdoctoral work. Knowledge of and hands-on experience with protein analytical techniques (SDS-PAGE, IEF, HPLC, florescence, DSC, CD) is essential. Familiarity with formulation of proteins and lyophilization is desirable. Box# 92-137MH.

## MICROBIAL PHYSIOLOGIST

Responsibilities include optimizing culture conditions for expression of recombinant therapeutic proteins in bacteria and yeast. You will collaborate in the design of microbial host/vector systems and develop small-scale screening methods for medium and culture condition optimization. You will also characterize cell banks and fermentation processes for regulatory submissions.

Requires a PhD in Microbiology and 5+ years' pharmaceutical biotechnology industry experience. Interest in secretory protein processing and familiarity with FDA "POINTS TO CONSIDER FOR BIOLOGICALS PRODUCED BY rDNA TECHNOLOGY." Management and team leadership a plus. Box# 92-138BM.

## CLINICAL PHARMACOLOGY SCIENTIST

You will assume responsibility for the daily operations of the clinical pharmacology laboratory. This group is responsible for collecting and analyzing antigenicity, pharmacological, and immunological data from human trials. Additionally, you will integrate these data with the clinical patient database while communicating the results of these studies to our outside investigators.

Position calls for an experienced MD or PhD who has demonstrated experience in developing and analyzing clinical pharmacology and/or immunology data. Excellent communication and writing skills are necessary. Experience with database management is a plus. Box# 92-120BZ.

## PURIFICATION PROCESS/ DEVELOPMENT SCIENTIST

You will be responsible for the design and development of purification processes for a variety of recombinant proteins. You will also provide detailed biochemical characterization of process parameters as well as intermediate and final product materials.

Requires a PhD with a solid biochemical background and strong skills in the areas of protein purification and protein folding. Knowledge of cGMP is a plus. Box 92-136BF.

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ment, 4560 Horton Street, Emeryville, CA 94608. We are an Equal Opportunity Employer.





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**MEDICINAL CHEMISTRY** Will direct organic synthesis of peptide and other lead compounds for drug discovery research. PhD in Medicinal Chemistry with significant related experience required.

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## **BOB DIRECTOR, BOB** PRE-CLINICAL STUDIES

Will manage collaborations with universities, pharmaceutical companies, and contract toxicology organizations. DVM/PhD in Toxicology preferred. PharmD with relevant experience also considered. High level of administrative and organizational skills required.

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#### **POSITIONS OPEN**

**BIOTECHNOLOGY POSTDOCTORAL ASSO-CLATE**, 1- to 2-year position on NSF-sponsored interdepartmental project on genetic engineering to enhance product recovery in nonchromatographic separations at Iowa State University, available immediately. Desire background in protein biochemistry or genetic engineering or chemical engineer with related experience. Send copy of curriculum vitae and three references to: Dr. C. E. Glatz, Chemical Engineering, 231 Sweeney Hall, Iowa State University, Ames, IA 50011. An Equal Opportunity and Affirmative Action Employer.

#### POSTDOCTORAL RESEARCH ASSOCIATE BROOKHAVEN NATIONAL LABORATORY

The Department of Applied Science has a position available for a Ph.D. trained in plant molecular biology with experience in DNA and RNA isolation and sequencing, protein purification, and Northern, Southern, and Western blotting techniques to conduct research on gene expression mechanisms. Experience with eukaryotic algae and structural biology is desirable. The successful candidate will join an ongoing research program to elucidate the molecular mechanisms responsible for the photoregulation of gene expression in eukaryotic algae.

Candidates are asked to forward curriculum vitae, list of publications, and the names and addresses of three references to: Dr. Paul G. Falkowski, Department of Applied Science, Building 318, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, NY 11973. Equal Opportunity Employer M/F/D/V.

#### POSTDOCTORAL RESEARCH ASSOCIATE BROOKHAVEN NATIONAL LABORATORY

The Department of Applied Science has a position available for a Ph.D., preferably in chemistry, with experience in x-ray absorption spectroscopy. A background in geochemistry and/or environmental chemistry is desirable. The successful candidate will participate in an interdisciplinary research program using synchrotron radiation-based x-ray absorption spectroscopy as an analytical tool for determining chemical species in study samples. Duties will include: (1) measuring x-ray absorption spectra samples at the National Synchrotron Light Source; (2) analyzing the spectral data using computerbased algorithms; and (3) developing, modifying or adapting the necessary computer algorithms for data analysis.

Applicants are asked to forward résumé, copies of relevant publications and names, addresses and telephone numbers of three references to: Mr. Bernard Manowitz, Department of Applied Science, Building 801, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, NY 11973. Equal Opportunity Employer M/F/D/V.

#### **RESEARCH ASSOCIATE**

Position available in the General Clinical Research Center, Biomedical Mass Spectrometry Facility. Responsibilities include development of new techniques and application of stable isotopic methodology to human biological research; teach fellows, students and other technicians techniques of biomedical mass spectrometry; supervise the daily operation and quality control of the facility. Successful candidates will have an advanced degree (M.S. or Ph.D.) in chemistry or environmental science. Experience in research and a publication record in peer-reviewed journals is required. Send letter of application, professional résumé, names and addresses of three references and brief outline of research interests to: Dr. Sree Nair, Metabolic Unit, Department of Medicine, Given Building, The University of Vermont (UVM), Burlington, VT 05405. Position open until filled. UVM is an Affirmative Action/Equal Opportunity Employer. Applications from women and people from diverse racial, ethnic and cultural backgrounds are encouraged to apply.

#### RESEARCH ASSOCIATE TRANSGENIC MOUSE FACILITY

Research associate to oversee transgenic mouse facility at University of Southern California Medical School. Experience in production of transgenic mice essential, recombinant DNA techniques desirable. Highly competitive salary commensurate with experience. Send résumé to: Ms. Josie Lopez, Norris Cancer Hospital, Room 743, 1441 Eastlake Avenue, Los Angeles, CA 90033.

#### **POSITIONS OPEN**

**RESEARCH ASSOCIATE**. Twelve-month position with possible extension to 36 months contingent on funding available in the Agronomy Department to conduct research on plant gene expression in soybean and/or Arabidopsis. Requires Ph.D. in a plant science discipline and appropriate training in plant molecular biology (e.g., DNA cloning, DNA sequence analysis, plant transformation). Submit résumé, transcripts and three letters of reference by 22 June 1992 to: Dr. Robert C. Shearman, Head, Department of Agronomy, University of Nebraska-Lincoln, P.O. Box 830915, Lincoln, NE 68583-0915; telephone: 402-472-15555. Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATES IN PHYSIOLOGY: Three 3- to 4-year term federal civil service positions in following areas: NEUROBIOLOGY to study free radical actions in neurons and glia (Dr. Terry Pellmar); LEUKOCYTE/ENDOTHELIAL CELL PHYSIOL-OGY to study ion channels, signal transduction and/or wound healing (Dr. Elaine Gallin); RADIOBIOLOGY to study radiation effects on neural and glial function (Dr. David Livengood). Salary: \$21,906 to \$42,152 per year depending on experience. U.S. citizenship required. Information: 301-295-0378. To apply send curriculum vitae and SF-171 to: Physiology Department, DNA, Armed Forces Radiobiology Research Institute, Bethesda, MD 20889. An Equal Opportunity Employer.

**RESEARCH ASSOCIATE**: The Research Laboratories of the Division of Endocrinology, Rhode Island Hospital, seek a Ph.D. with postdoctoral training in molecular biology to undertake research into regulation of neural peptide biosynthesis in pituitary and hypothalamus utilizing DNA/RNA isolation. Northern/Southern blorting, in situ hybridization, site-directed mutagenesis, transfection, oligonucleotide probes, PCR, 2-D gels, HPLC, tissue culture.

Send curriculum vitae and names of three referees to: Ivor Jackson, M.D., Director, Division of Endocrinology, Brown University, Rhode Island Hospital, 593 Eddy Street, Providence, RI 02903. Rhode Island Hospital is an Affirmative Action/Equal Opportunity Employer.



#### DEPARTMENT OF AGRICULTURE (USDA) AGRICULTURAL RESEARCH SERVICE (ARS)

MICROBIOLOGIST, Virology Cattle Research Unit, National Animal Disease Center, Ames, Iowa.

ARS is seeking a microbiologist to develop tests for detection of virus contamination in meat and meat products. Candidate must have knowledge of basic molecular biology techniques and the skill and ability to operate instruments used in those techniques, knowledge and skills in cell culture methods and the ability to isolate and identify pathogenic viruses. Ph.D. is desirable. *Must be U.S. citizen*. Salary is commensurate with experience (\$32,423 to \$60,070 per annum). For information on the research program and position, contact: **Dr. Steven Bolin at 515-239-8474**. For information on application procedures/forms, contact: **Janie Carr at: 301-344-1258**. Applications in response to this advertisement should be marked **2N047**. Applications must be postmarked by 30 June 1992. Mailing address:

USDA, ARS, Personnel Operations Branch Room 325 6305 Ivy Lane Greenbelt, MD 20770

#### RESEARCH IN EXPERIMENTAL PATHOLOGY AND MOLECULAR PATHOBIOLOGY LEADING TO THE Ph.D.

Expanded faculty and state-of-the-art facilities; stipends of \$13,000 and up per year including full tuition waivers; attractive campus in suburban Westchester close to New York City; expedited review process and flexible entrance times for promising candidates. Contact: Dr. Michael B. Stemerman, Professor and Chairman, Department of Experimental Pathology, New York Medical College, Valhalla, NY 10595. Telephone: 914-993-4625. Equal Opportunity Employer. Division of Computer Research and Technology National Institutes of Health Bethesda, Maryland

## SCIENTISTS

The Division of Computer Research and Technology (DCRT), under new direction, is seeking to expand its research programs in Computational Biosciences and High Performance Computing and Communications (HPCC). We seek senior level (five years or more Post Doc. research experience) scientists with Ph.D.'s or equivalent, and relevant experience to direct laboratories in the following areas:

- Computational Molecular Biology
- Computational Structural Biology (especially x-ray crystallography, multi-dimensional NMR, protein structure prediction, protein folding and drug design)
- Biomedical Image Processing (Clinical and Laboratory)
   Computationally Intensive Statistics with Biomedical
- Computationally Inte Applications

Positions, salaries, benefits and resources will be commensurate with training and relevant experience, and will cover the full range of possibilities in Federal employment mechanisms.

Applicants should send curriculum vitae, bibliography, SF-171, statement of experience and plans to:

Computational Sciences Initiative DCRT Personnel Building 12A, Room 3013 9000 Rockville Pike Bethesda, MD 20892



DCRT is an Equal Opportunity Employer Applicants with disabilities are encouraged to apply.

## CHAIR OF ANATOMY

(Readvert**isement)** 

Monash University angles applications for the position of Professor and Head of the Department of Anatom. The experime will have a distinguished record of research and expolarship in an experiment efforces and will have proven skills in research encourses and departmental administration.

the temperature of Anatomy plays a provide real management of Anatomy plays a provide real management of Anatomy plays a provide real management of Anatomy plays a provide real and the play a provide real structure of the following courses; Musculoskeletal System (Year Q Communicular, Respiratory and Bastrointestinal Medicine (Year 2); Head and Ness, transmissioner, Respiratory and Bastrointestinal Medicine (Year 2); Head and Ness, transmissioner, Respiratory and Bastrointestinal Medicine (Year 2); Head and Ness, transmissioner, Respiratory and Gastrointestinal Medicine (Year 2); Head and Ness, transmissioner, Respiratory and Gastrointestinal Medicine of Anatomy in second and third year Science courses in the heatment of Science. The intake of Medical students is 160 per year, and approximately thermatics of Science students. The Department's postgraduate students include to the state and 10 Kernet.

BSc Honours candidates. The Department has 13 academic, 15 technical and 3 administrative out memory of It has an established reputation for excellence in the field of morphology at account teaching and is particularly well equipped for experimental studies including these using electron microscopy. The Department is enthusiastic to explore additional cross-discipline activities and encourages staff members to undertake joint research

and teaching with scientists in other departments and schools. Salary: \$A73,800 per annum on appointment, to rise to \$A77,900 per annum in July 1992 (plus appropriate loadings to medically qualified candidates). Superannuation, travel and removal allowance, and temporary housing assistance are available.

Information on application procedure and further particulars may be obtained from the Personnel Officer (Chair Appointments), Monash University, Clayton, Victoria 3168, Australia, facsimile 61-3-5655030. Enquiries of an academic nature may be directed to the Dean of the Faculty of Medicine, Professor R Porter, facsimile 61-3-5654302.

Applications should reach the Registrar not later than Friday 26 June 1992. Council reserves the right to make no appointment or to appoint by invitation at any stage.



## SCIENTIST

## **Drug Metabolism and Pharmacokinetics**

SmithKline Beecham, a worldwide leader in pharmaceutical research, is seeking a scientist to join our Clinical Pharmacokinetics group.

The Scientist will design, direct and analyze clinical and preclinical pharmacokinetic and pharmacodynamic studies. This position offers substantial opportunity for collaboration with other scientists involved in the discovery and development of novel therapeutic agents. As part of multi-disciplinary project teams, the scientist will be expected to provide the drug metabolism and pharmacokinetic perspective to fellow research scientists. Since the scientist will assume a high degree of project related responsibility, the position will draw heavily upon individual scientific initiative, independence and innovation. Excellent interpersonal and communication skills are essential, Publication and presentation of research findings are strongly encouraged.

Candidates should possess a Ph.D. in Pharmacy, Pharmaceutics, Pharmacology, Pharmacokinetics or a related field, or Pharm.D. with at least 2-3 years postdoctoral experience in pharmacokinetics. An in-depth understanding of pharmacokinetic and pharmacodynamic principles and demonstrated ability to apply those principles are required. Background in bioanalytical methodology is desirable.

Our state-of-the-art research facility is located in suburban Philadelphia, near Valley Forge, PA. We offer a competitive compensation/benefits/relocation package and a stimulating team environment. For confidential consideration, send your resume to: HR McConnell, M043, Employment Administrator, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.

> SB SmithKline Beecham Pharmaceuticals

# CHAIRMAN

DEPARTMENT OF PATHOLOGY

Roswell Park Cancer Institute is seeking a Chairman for the Department of Pathology. This internationallyrenowned comprehensive cancer center is entering a period of renewed growth. Opportunity for research and academic activity is outstanding. Substantial academic credentials and an interest in research are highly desired. A faculty appointment will be at the School of Medicine and Biomedical Sciences, SUNY at Buffalo, according to the level of professional qualifications.



Curriculum vitae should be sent to:

Nicholas J. Petrelli, M.D. Chairman, Search Committee Department of Surgical Oncology Roswell Park Cancer Institute Elm and Carlton Streets Buffalo, New York 14263

Roswell Park is an EOE/MFHV

#### ATHEROSCLEROSIS/LIPOPROTEIN RESEARCH

The Health Sciences Department of Monsanto Corporate Research is seeking a Ph.D. scientist interested in studying therapeutic intervention in atherosclerosis and related cardiovascular diseases. Particular emphasis will be on regulation of HDL and LDL metabolism, with preference for those with molecular biology expertise. We are also looking for a team player with proven leadership skills in laboratory and project work. Postdoctoral experience is also desirable. The Health Sciences Department of Monsanto is located at a multidisciplinary research campus in suburban St. Louis and conducts both fundamental and applied research in developing novel human health care medicines. Please submit current curriculum vitae, including three references, to: Manager, Human Resources, Monsanto Corporate Research, O2H-KG, 800 North Lindbergh, St. Louis, MO 63167. An Equal Opportunity Employer.



**RESEARCH ANIMAL SCIENTIST**, permanent position, West Lafayette, Indiana. Incumbent will be located in facilities of Purdue University's Animal Sciences Department. Responsible for initiating and developing a research program directed toward understanding the relationships among physiological parameters, animal behavior, and well-being. Research would include identification of internal states of animal cognition/perception and development of indicators of well-being for food-producing animals. Degree in animal science or related discipline, which included at least 20 semester hours in animal science, and professional experience in animal physiology are desirable. Salary range: \$38,861 to \$54,607 per annum based on qualifications and experience. For position information contact: Dr. J. R. Wilcox, 317-494-8074. For the vacancy announcement and application procedures contact: Beverly Webert, 301-344-1921. Applications must be marked 2N040 and postmarked by 29 June 1992. Incomplete applications will not be considered. ARS is an Equal Opportunity Employer.

#### ECOLOGICAL RESEARCH MANAGER

University of Georgia's Savannah River Ecology Laboratory (SREL) has an immediate opening for a full-time science administrator. The research manager will be responsible for the daily management, project coordination, and report and proposal preparation for the Wildlife Ecology and Toxicology Division. The individual will have frequent interaction with SREL and University of Georgia research faculty and administrators and state and federal personnel. *Candidates must be U.S. citizens* and have a Ph.D. degree and training in ecology or environmental science. Knowledge of federal environmental regulations and experience in research project management are desirable. Supervisory and communication skills will be weighed heavily in evaluating candidates. Salary is negotiable, depending on the professional record of the applicants. Applicants should send their résumé, reprints, and the names, addresses and telephone numbers of four individuals who may be contacted as references to:

#### Dr. Ronald K. Chesser Wildlife Ecology and Toxicology Division Savannah River Ecology Laboratory Drawer E

## Aiken, SC 29802

Applications will be accepted until 7 June 1992. The University of Georgia is an Equal Opportunity/Affirmative Action Institution.

#### **RESEARCH VERTEBRATE ECOLOGIST**

To be part of research team at USDA Forest Service, Rocky Mountain Forest and Range Experiment Station, Laramie, Wyoming. Required: Ph.D. in vertebrate ecology or related field; ecological modeling and advanced statistical ability; ability to conduct landscape-level research. Knowledge of rangeland/big game ecology desirable. Formal announcement will be sent to all respondents. Send résumé by 15 June to: Dr. Len Ruggiero, Forestry Sciences Lab, 222 South 22nd Street, Laramie, WY 82070.

#### **POSITIONS OPEN**

PHYSIOLOGIST, GS-413-13/14, Cardiac Rhythm Disturbances. Seeking a physiologist with knowledge of cardiac electrophysiology to administer program. Candidates must have a Ph.D., M.D., D.V.M. or equivalent degree and be committed to an administrative, nonlaboratory career. Excellent verbal and written communication skills required. Please submit Application for Federal Employment, SF-171, and curriculum vitae to: National Heart, Lung, and Blood Institute, Attention: Ms. Logan, Personnel Office, Building 31, Room 5A28, 9000 Rockville Pike, Bethesda, MD 20892; telephone: 301-496-6477. Applicants must be a U.S. citizen. National Institutes of Health is an Equal Opportunity Employer.

#### TISSUE TYPING COORDINATOR

Position available in Immunogenetics/Bone Marrow Transplantation Laboratory at All Children's Hospital (ACH), St. Petersburg, Florida. Responsibilities include HL-A typing, mixed lymphocyte cultures, development and standardization of new tests and participation in the processing of bone marrow for transplantation. M.S. or Ph.D. with experience in immunogenetics preferable. ACH is a JCAHO-accredited teaching and research facility and offers a competitive compensation package which includes paid medical/dental/life insurance and a stimulating professional environment for career development. For more information, call: **813-892-4139**. Equal Opportunity Employer M/F/H/V.

SCIENTIST experienced with amino acid column chromatography to supervise clinical metabolic disorder laboratory. Research opportunities available. Knowledge of clinical inborn errors of metabolism. Must have excellent organizational and communication skills. Minimal requirements: bachelor's degree in biochemistry or related area and 5 years of experience. Master's degree and 3 years of experience. Clinical experience and qualification for New York City supervisor license in area 051 helpful. Salary: \$37,821. Send résumé to: Personnel, New York State Institute for Basic Research in Developmental Disabilities, 1050 Forest Hill Road, Staten Island, NY 10314, Reference #702.

## **ANNOUNCEMENTS**

#### GRANT PROPOSAL SOLICITATION

USDA's Biotechnology Risk Assessment Research Grants Program was announced in the Federal Register 17 April 1992. Proposals are due 1 June 1992. The program is funded with \$1.4 million. Copies of the program notice and/or the application kit can be requested via FAX at 202-401-4888 after business hours and on weekends. Please state whether you are requesting the notice and/or the kit. Written requests can be mailed to: USDA/CSRS/NBIAP, Suite 330 Aerospace Center, 901 D Street, SW, Washington, DC 20250–2200.

#### KENNETH MORGAREIDGE AWARD

To acknowledge and promote excellence in the area of toxicology, the International Life Sciences Institute (ILSI) sponsors the Kenneth Morgareidge Award. The \$5000 award will be presented at an international symposium in March 1993 in Hannover, Germany. The recipient must accept in person and present an overview of research. Candidates must be from academia, government or industry. All documents must be in English. Deadline is 15 September 1992. For application, contact: F. DeLuca, ILSI, 1126 16th Street, NW, Washington, DC 20036. Telephone: 202-659-0789.

## **RESEARCH AWARDS**

The International Life Sciences Institute (ISLI) Research Foundation announces that one or two awards for a basic research project in TOXICOLOGY or ENVI-RONMENTAL HEALTH (to include human nutrition), of up to \$100,000 over 3 years, will be made in 1993. The purpose of the award program is to encourage innovative new investigators in basic biomedical sciences to apply modern knowledge and techniques to basic problems related to comparative toxicology or environmental influences on growth, development and aging. The closing date for applications is 25 August 1992. For further information, write: Award Administrator, ILSI Research Foundation, 1126 16th Street, NW, Suite 100, Washington, DC 20036.

## **POSITIONS OPEN**

## ENVIRONMENTAL SPECIALIST IV

Palatka, Florida. Salary: \$33,000 to \$49,500. This is a senior research position for an environmental toxicologist who will be responsible for the development and management of a toxic substances survey for a large estuarine ecosystem and for development of remediation plans. Should have experience in sampling and analyzing sediments and tissues for the presence of toxic substances, knowledge of environmental health effects of various pollutants, and knowledge of remediation techniques. A bachelor's degree from an accredited college in toxicology, biology, estuarine ecology or related field and 5 years of experience in environmental toxicology. Send résumé with source of ad to: The St. Johns River Water Management District, Office of Human Resources, P.O. Box 1429, Palatka, FL 32178–1429. Apply by: 5 June 1992.

Equal Employment Opportunity/Affirmative Action Employer/Veteran Preference DRUG-FREE WORKPLACE

### SITUATIONS WANTED

Ph.D. IN MEDICAL MYCOLOGY, 10 years of research and process development experience in fermentation technology and bioengineering of yeast metabolites (ethanol, SCO and glycerol), training in yeast genetic engineering and biosensors. Interested in a research position in academic or industrial concerns. Fields of interest: Pathogenesis of HIV and drug development/yeast genetics/industrial process development of microbial metabolites. Contact: 223 Schrade Road, #1A, Briarcliff Manor, NY 10510. Telephone: 914-941-8192.





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- 12
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- immunoblots
- 17. Used to label tubulin and aldolase at pH 6.8-7.5
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- 25. Will inhibit <sup>125</sup>I-EGF binding to EGF receptor
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   If more than one entrant correctly solves the puzzle, the winner will be selected in a random drawing on August 15, 1992. Winner will be notified no later than September 1, 1992.
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- 8
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