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March 13 Reprint

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- Mentoring
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POSITIONS OPEN

BIOLOGY: The University of North Alabama announces the availability of a tenure-track position in the Department of Biology beginning 24 August 1992 or 11 January 1993 at the **INSTRUCTOR** or **ASSISTANT PROFESSOR** rank; master's degree required, Ph.D. preferred. Responsibilities include undergraduate teaching in the areas of molecular biology and introductory biology, student advising and research related to the specialty area. Salary commensurate with degree, rank and experience. *Women and minorities are encouraged to apply.* Submit a letter of application by 12 June 1992 accompanied by curriculum vitae (including transcripts) and the names, addresses, and telephone numbers of three references to: **Mr. Robert S. Steen, Director, Human Resources and Affirmative Action, Box 5043, University of North Alabama, Florence, AL 35632-0001.**

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ASSISTANT PROFESSOR: IMMUNOLOGIST

The Department of Ophthalmology and Visual Sciences at Washington University School of Medicine is inviting applications for a tenure-track assistant professor in ocular immunology. We are seeking a cellular immunologist with experience in viral and/or transplantation immunology. The successful candidate will develop and maintain an extramurally funded research program and have the opportunity to interact with a core of established investigators studying ocular models of immunologic and infectious disease. Please send curriculum vitae, summary of research interests, and three references to: **Jay S. Pepose, M.D., Ph.D., Washington University School of Medicine, Department of Ophthalmology—Box 8096, 660 South Euclid Avenue, St. Louis, MO 63110.**

Washington University is an Equal Opportunity/Affirmative Action Employer. M/F/H/V

ECOLOGY: ASSISTANT PROFESSOR. The Department of Biology, State University of New York (SUNY) College at Fredonia, invites applications for an anticipated tenure-track position opening for August 1992. Qualifications include a Ph.D. in biological sciences and a commitment to undergraduate instruction and research. The major teaching responsibility will be our general ecology course for biology majors. Specialty area is open, but ability to offer field courses is highly desirable. The college has a student population of about 4500 undergraduates and is located near Lake Erie, 40 miles southwest of Buffalo. The department has ten faculty and about 250 undergraduate majors in biology, medical technology, and recombinant gene technology. M.S. degrees are offered in biology and biology education. Applications should include curriculum vitae, three letters of recommendation, and a letter explaining teaching and research interests. Send applications to: **Search Committee, Department of Biology, SUNY College at Fredonia, Fredonia, NY 14063; telephone: 716-673-3280.** Applications will be reviewed as received. Application deadline is 20 June 1992. *SUNY College at Fredonia is an Equal Opportunity/Affirmative Action Employer. Women and minorities are strongly encouraged to apply.*

MOLECULAR/CELLULAR BIOLOGIST ASSISTANT PROFESSOR

Applications are invited from individuals with experience in molecular or cellular biology, whose research is relevant for understanding the molecular basis of host-parasite interactions. A specific background in parasitology is not required. Applicants should have a Ph.D. or equivalent and at least 2 years of postdoctoral experience. Applicants will be expected to have demonstrated ability to run a strong independent research program and to supervise postgraduate student research. The position is available immediately. *McGill University is committed to Equity in Employment: qualified women and men are encouraged to apply. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada in the first instance.* Applicants should send an outline of research interests, curriculum vitae and the names of three individuals who have agreed to provide letters of recommendation to: **Dr. Greg Matlashewski, Institute of Parasitology of McGill University, Macdonald Campus, 21,111 Lakeshore Road, Ste.-Anne-de-Bellevue, Québec, Canada, H9X 1C0, before 30 September 1992.**

POSITIONS OPEN

VISITING ASSISTANT PROFESSOR OF PHYSIOLOGY. A primary teaching position is available in the Physiology Section of the Medical Sciences Program on the Bloomington campus of Indiana University. The successful candidate will participate in the teaching of the basic undergraduate and/or medical physiology courses. A Ph.D. or equivalent degree is required. The initial appointment is for 1 year, with a possibility for renewal. Emphasis is placed on quality instruction. Opportunity for research is available and encouraged. Send your curriculum vitae along with the names, addresses and telephone numbers of three references to: **Dr. Talmage R. Bosin, Medical Sciences Program, Myers Hall, Indiana University, Bloomington, IN 47405, telephone: 812-855-8118.** Applications will be reviewed starting 15 June 1992 and the search will continue until the position is filled. *An Equal Opportunity/Affirmative Action Employer.*

Tenure-track faculty position at the **ASSISTANT PROFESSOR** level is available starting July 1992 within the Division of Cell and Developmental Biology, The Pediatric Research Institute. Candidates must have a Ph.D. in cell and molecular biology, with postdoctoral experience in molecular biology, should be capable of developing and maintaining independent research activity, and successfully competing for extramural funding. Expertise in the area of transcriptional/posttranscriptional regulation of gene function or molecular genetic analysis of development is preferred. Interested candidates should send their curriculum vitae and three letters of recommendation to: **Dr. S. Devaskar, 3663 Park Avenue, St. Louis, MO 63110. St. Louis University is an Equal Opportunity Employer.**

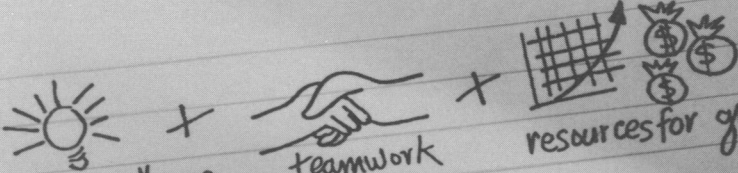
ASSISTANT PROFESSORSHIP (tenure track) for physician-investigator with the Division of Endocrinology and Metabolism and the Program in Human Molecular Biology and Genetics, University of Utah School of Medicine. Targeted areas of research: molecular biology or genetics of Ca/bone metabolism, endocrine tumor biology, or diabetes mellitus. Applicants should have sufficient advanced research training/experience to permit independence. Clinical commitment sharply limited. Rank and salary dependent on qualifications; position open until 31 August 1992 or until filled. *The university is an Affirmative Action/Equal Employment Opportunity Employer.* Send curriculum vitae and three references to: **Hunter Heath, M.D., Chief, Division of Endocrinology, University of Utah Medical Center, 4C216 SOM, Salt Lake City, UT 84132; or Stephen Prescott, M.D., University of Utah Medical Center, Eccles Institute of Human Genetics, Building 533, Suite 4220, Salt Lake City, UT 84112.**

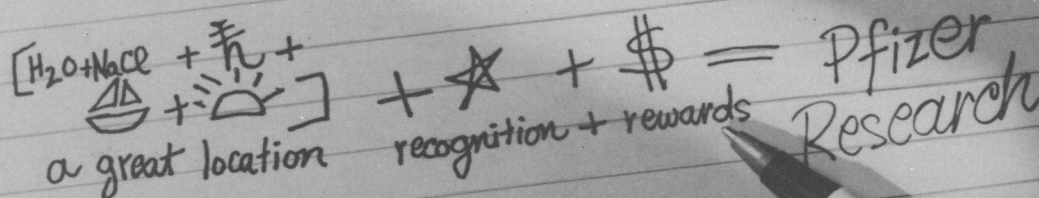
ASSISTANT/ASSOCIATE PROFESSOR OF MICROBIOLOGY AND IMMUNOLOGY

Twelve-month tenure-track position. Special consideration will be given to individuals working with retroviruses, tumor viruses, lymphokines or psychoneuroimmunology. The individual is expected to participate in teaching medical and graduate students. Applicants should have postdoctoral experience and potential to develop a productive/fundable research program. Screening of candidates begins 29 June 1992. Starting date is 1 January 1993. Send curriculum vitae, description of research interests, and three references to: **Chair, Search and Screen Committee, Terre Haute Center for Medical Education, Indiana University School of Medicine, 135 Holmstedt Hall, Terre Haute, IN 47809. Indiana University is an Equal Opportunity/Affirmative Action Employer.**

PROFESSOR AND CHAIR, DEPARTMENT OF BIOLOGICAL CHEMISTRY. The University of California, Irvine (UCI), College of Medicine, seeks outstanding scientist in molecular biology or biochemistry, including, but not limited to, disciplines such as developmental biology, neurobiology, and human genetics. The candidate must be of great distinction and lead an active research program. Send nominations or applications to: **Professor Francisco J. Ayala, Chair of Search Committee, c/o Janet Nash, Room 246, Irvine Hall, College of Medicine, University of California, Irvine, CA 92717.** Nominations and applications will be accepted through October 1992. *UCI is an Affirmative Action/Equal Opportunity Employer. Nominations of and applications from women and minorities are encouraged.*

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Molecular Pharmacology—You will use innovative strategies to clone novel genes important in inflammatory diseases. The position requires broad experience in contemporary molecular biology techniques, and it would be a further advantage to have experience in steroid receptor biology, gene transcription or immunology.

Diabetes/Obesity—As a laboratory scientist, you will conduct research in our Diabetes and Obesity Group. Previous research laboratory experience demonstrating proficiency in molecular biology and biochemical techniques required.

Viral Immunology—Evaluate mechanics of novel immunostimulants using *in vivo* models. Experience using immune function assays, cell culture, *in vivo* modeling and biochemical techniques highly desired.

Inflammation—Two positions are available in our laboratories which are targeting receptors on leukocytes as a novel approach for developing new anti-inflammatory therapy. Some knowledge of cell isolation techniques, receptor-ligand interactions, immunoprecipitation, electrophoresis, ELISA and signal transduction mediated through specific receptors or leukocytes would be helpful.

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**FACULTY POSITIONS
DEPARTMENT OF
MICROBIOLOGY
NEW YORK UNIVERSITY
SCHOOL OF MEDICINE**

The Department of Microbiology of NYU School of Medicine is seeking to fill two tenure track positions at the Assistant/Associate Professor level. We are particularly interested in attracting outstanding researchers with a Ph.D. or M.D. degree working in the fields of animal virology, oncogenes, growth factors and their receptors, and microbial pathogenesis, but will also welcome applications from individuals interested in the molecular analysis of gene expression and function in general. Participation in the Department's graduate and medical students teaching is expected. Salary is open and dependent upon experience and qualifications, and start-up funds are available.

The Department of Microbiology occupies newly renovated laboratory space in the Medical Science Building at NYU Medical Center, and comprises at present a group of faculty with diverse research interests including oncogenic viruses, the mechanism of action of cytokines and growth factors, mechanisms of microbial pathogenicity and antimicrobial host defenses, regulation of gene expression in bacteria and animal cells, molecular genetics, etc. The Department has an active graduate training program and also participates in the Kaplan Cancer Center and the Center for AIDS Research. Both of these Centers are interdisciplinary NIH funded programs.

Applicants should send their curriculum vitae, names of three references, and a brief statement of Research interests to: **Dr. Claudio Basilio, Professor and Chairman, Department of Microbiology, NYU Medical Center, 550 First Avenue, New York, NY 10016.**

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**FACULTY POSITION
WAKE FOREST UNIVERSITY
The Bowman Gray
School of Medicine
NEUROSCIENCE
ASSISTANT OR
ASSOCIATE PROFESSOR**

Tenure-track faculty position for individual with expertise in molecular or cellular neuroscience. Candidates must have a Ph.D. or M.D., post-doctoral experience and a record of extramural funding for an independent research program. Area of expertise may include, but is not limited to, developmental neurobiology and sensory neurobiology, including retinal cell biology. Teaching responsibilities include participation in graduate neuroanatomy and neuroscience courses. The successful candidate will join a large Neuroscience Program composed of over 50 individuals in both basic and clinical science departments which offer an interdisciplinary Ph.D. degree in Neuroscience. Applicants should submit the following material to the address below by June 1: curriculum vitae, reprints of two-three of their most significant papers, a concise description of research interests and goals, and arrange for three letters of reference to be sent to: **Chair, Dr. Ronald W. Oppenheim, Neuroscience Search Committee, Department of Neurobiology and Anatomy, Wake Forest University, Bowman Gray School of Medicine, Winston-Salem, NC 27157-1010. EOE (Equal Opportunity Employer).**

Bioprocess Development Professionals

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The R.W. Johnson Pharmaceutical Research Institute (PRI) is a first-class worldwide research and development organization within Johnson & Johnson, the world's largest and most comprehensive provider of health care products. PRI performs R&D activities for the Johnson & Johnson companies ... Cilag, McNeil Pharmaceutical, Ortho Pharmaceutical and Ortho Biotech.

To shorten key product development and clinical program schedules and better control quality and costs, we have just completed construction of a 78,750 sq. ft. Protein Development Center to house pilot production facilities with an attached wing for development labs and related environmental rooms.

We can offer truly ground-floor opportunities for Bioprocess Development Professionals to join us at the start-up and pre-qualification phase at our campus-like facilities in central New Jersey, midway between New York City and Philadelphia.

Research Scientist/ Sr. Research Scientist

Requires Ph.D. and 0-3 years' experience demonstrating basic familiarity with biochemical/chromatographic separation technologies. Knowledge of bioanalytical characterization methods desired.

The successful candidate will develop purification processes for isolating protein products for therapeutic use; characterize protein intermediates and product molecules; validate processes and methods. (Dept. 9A)

Research Assistant/ Research Associate

Requires BS in Biochemistry, Chemistry, or Biological Sciences and knowledge of the analysis of proteins by IEF, Western, SDS PAGE and other bioanalytical methodologies. Experience interfacing effectively on multidisciplinary drug development teams required; GLP experience desired.

The successful candidate will provide analytical services for process development; characterize protein products for activity and identity; operate/maintain analytical equipment, particularly HPLC. (Dept. 9C)

Purification Specialist/ Sr. Purification Specialist

Requires BS/MS in Biochemical/Chemical Engineering or a Biological Science with 0-3 years of experience in scale-up of protein purification ... including GMP operation of chromatography columns and related support operations: buffer make-up, column assembly and packing, process monitoring and control. Knowledge of ultrafiltration desired.

The successful candidate will develop and implement protein purification processes in the manufacture of clinical grade protein biologics; evaluate processes, equipment and materials; develop operating procedures, batch records and process validation protocols. (Dept. 9D)

Associate Scientist/ Sr. Associate Scientist

Requires BS/MS or equivalent in Microbiology, Cell Biology or Biochemical Engineering and 1-2 years of experience in fermentation/cell culture process development. Background must include work with recombinant protein and monoclonal antibodies.

The successful candidate will be responsible for developing fermentation processes, medium optimization, characterization of other physiochemical parameters and transfer of processes to production environment. (Dept. 9B)

Fermentation Specialist

Requires BS/MS or equivalent in Microbiology, Biochemical Engineering or Cell Biology and 1-2 years of "hands-on" experience in fermentation process development and/or manufacturing. Background must include work with recombinant prokaryotic or eucaryotic microbes, secreted proteins, large-scale mammalian cell culture, cGMP as applied to the manufacture of clinical biologics.

The successful candidate will be responsible for large-scale preparations of cell culture media, prepare/operate lab and pilot scale fermentors used for the manufacture of recombinant/secreted protein products, preparation of inocula, harvesting and primary concentration of fermentation products, writing SOPs and batch records. (Dept. 9E)

Validation Specialist/ Sr. Validation Specialist

Requires BS/MS or equivalent in Chemical Engineering with approx. 5 years' experience in validation of equipment and processes. Working knowledge of drug and biologics GMPs required.

The successful candidate will be responsible for validating biological facilities, equipment and processes; develop/execute protocols, analyze results and prepare reports; interface with Operations and Quality concerning validation studies. (Dept. 9F)

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No phone calls please. Send resume, including salary history: Mr. Thomas Hutton, indicate the Dept. # for the position of your choice, R.W. Johnson Pharmaceutical Research Institute, P.O. Box 300, Raritan, NJ 08869-0602.

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Senior Environmental Scientist/ Research Program Manager

The ideal candidate is a nationally recognized expert in wetlands biogeochemical processes who has managed interdisciplinary teams performing studies of wetlands ecology and nutrient dynamics. Desired qualifications include a strong background in wetlands ecology, aquatic chemistry, and statistics; excellent communications and interdisciplinary skills; contract management experience; and a demonstrated record in solving environmental problems. A Ph.D. in wetlands ecology, environmental chemistry, environmental engineering, or a related field is required. Knowledge of Everglades wetlands ecology or biogeochemistry, expert witness experience, and expertise with modeling, spreadsheet, statistical (SAS), and graphics PC software packages a plus. This position offers the opportunity to influence the restoration of one of the world's unique bioregions. Contact Dr. Thomas D. Fontaine, Director, Everglades Systems Research Division at (407) 687-6551 or send your resume to the address below.

Staff Environmental Scientist

We are seeking a quantitative environmental scientist to work on applied management problems in the aquatic resources of South Florida. The ideal candidate will have a strong background in quantitative aspects of environmental science including database management and advanced statistics; modeling experience would be a plus. Demonstrated ability to work in collaboration with multidisciplinary teams and a record of research accomplishments are desired qualities. A Master's degree in environmental science or related field with statistical/quantitative emphasis is desired. At least two years' experience with wetlands ecology, water quality analysis, hydrological/modeling or environmental management is sought. The position offers an opportunity to be involved with important research in applied science and to influence the future of South Florida's environment.

For a career that will leave its mark on society for generations, please send us your resume, indicating position of interest: Human Resources Division, RE: SM/52992/SES, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416-1680. To be considered, please include your social security number on your resume. We are an equal opportunity employer m/f/d/v.

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DIRECTOR

National Center for Human Genome Research

The National Institutes of Health (NIH) invites nominations and applications for the position of Director of the National Center for Human Genome Research (NCHGR). This is a Civil Service position in the Senior Executive Service (SES), with a salary range of \$90,000 to \$112,100 per annum. The person selected may also be eligible for Physician's Comparability Allowance of up to \$20,000 per year. A recruitment bonus of up to 25 percent of base pay may be available to a non-federal candidate selected for this position, subject to individual approval. A relocation bonus of up to 25 percent may be available to a permanent federal employee who must relocate to accept this position, subject to individual approval. A one year probationary period must be served if the individual selected is not currently in the Senior Executive Service. Members of the Commissioned Corps of the U.S. Public Health Service will be considered.

The Director administers, manages and oversees the human genome program for the NIH. S/he is the principal advisor to the Director, NIH, on the substance, quality and effectiveness of NIH human genome programs and research policies. The Director is responsible for strategic planning and identifying major areas of human genome research. Incumbent serves as a liaison on human genome research programs with the media, special interest groups, high-ranking scientific and executive officials in other Public Health Service agencies, the DHHS, other Federal agencies, the academic and private sector, and with members of or staff to the Congress.

For more information, contact Mary Glynn at (301) 402-1094. The following forms are required: Application for Federal Employment (SF-171) accompanied by a current curriculum vitae and bibliography. These must be submitted to:

Mary Glynn
National Institutes of Health
National Center for Human
Genome Research
Building 38A, Room 616
9000 Rockville Pike
Bethesda, Maryland 20892



Applications must be received by:
June 26, 1992

All qualified candidates will receive consideration without regard to race, religion, color, sex, age, national origin, lawful political affiliation, marital status, or physical or mental disability.

POSITIONS OPEN

EPIDEMIOLOGIST/ POPULATION BIOLOGIST ASSISTANT PROFESSOR (TENURE TRACK)

Applications are invited from individuals with experience in population biology, population genetics or epidemiology of infectious diseases and whose research is relevant for understanding the host-parasite interactions in human or livestock populations. Applicants should have a Ph.D. or equivalent, and at least 2 years of postdoctoral experience. Applicants will be expected to have demonstrated ability to run a strong independent research program and to supervise postgraduate student research. The position is available immediately. *McGill University is committed to Equity in Employment: qualified women and men are encouraged to apply. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada in the first instance.* Applicants should send an outline of research interests, curriculum vitae and the names of three individuals who have agreed to provide letters of recommendation to: **Dr. Marilyn Scott, Director, Institute of Parasitology of McGill University, Macdonald Campus 21,111 Lakeshore Road, Ste.-Anne-de-Bellevue, Québec, Canada, H9X 1C0, before 30 September 1992.**

The University of North Dakota School of Medicine seeks applicants for a position of **ASSISTANT OR ASSOCIATE PROFESSOR** to join the **DEPARTMENT 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.**

DIRECTOR OF RESEARCH & DEVELOPMENT. Established small manufacturer serving commercial horticulture and turf industries seeks candidate with master's degree in plant/soil sciences. Ph.D. desired, with strong organic chemistry background. Ten years of experience in turfgrass, ornamental horticulture and/or agricultural research, business and product development. Experience must include private sector experience at a managerial level. Must have demonstrated leadership qualities in project management and highly developed communication and interpersonal skills. Position reports to the president. Please submit curriculum vitae and salary history to: **Aquatrols Corporation, 5 North Olney Avenue, Cherry Hill, NJ 08003.**

DIRECTOR OF RESEARCH

The P/SL Healthcare System and Center for Health Sciences Education seek an M.D., Ph.D., Pharm.D., D.V.M., D.O., or D.P.M. researcher with experience in conducting clinical research to establish an Office of Research and Development. The system has two hospitals with 800 beds, an active medical staff numbering over 500, and centers of excellence in transplantation, oncology, limb preservation, geriatrics, cardiology, women's services, and behavioral health. Our graduate medical education programs are affiliated with Rush University in Chicago, the University of Colorado and the College of Osteopathic Medicine of the Pacific.

The director will be responsible for planning, developing, implementing, and evaluating the P/SL research program. Candidates are invited to commit up to 30% of their time to their own research activities. At least 10 years of experience in clinical research, knowledge of biostatistics, strong interpersonal skills, and exceptional written and verbal communication skills are required.

Send cover letter, curriculum vitae and references to:

Robert M. Rifkin, M.D.
Chairman

Search Committee for Research & Development
c/o Bone Marrow Transplant Program
Presbyterian/St. Luke's Medical Center
1719 East 19th Avenue
Denver, CO 80218

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 independent research and also promote collaborative research with existing programs in intestinal cellular energy metabolism, 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 pediatric teaching affiliate of Jefferson Medical College. Growth of the Gastroenterology Research Program has been occurring in parallel with the development of an academically oriented clinical program in pediatric gastroenterology and nutrition. The Gastroenterology Division 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 position is filled.

EDITOR/PRODUCER, VIDEO COURSES. The American Chemical Society is seeking an experienced professional to manage production of video courses for chemistry students, technicians, and researchers. Duties include arranging tapings; editing original manuscripts; hiring and working with technical advisers, video directors, writers, and other production personnel; preparing budgets; and supervising video production staff. Applicants MUST have degree in chemistry and experience in editorial and video production work. Supervisory experience highly desirable. Excellent oral and interpersonal skills and computer skills required. Some travel. Salary: high \$30,000's to low \$40,000's and excellent benefits. **RESUMES ONLY. American Chemical Society, 1155 16th Street, N.W., Suite 100, Washington, DC 20036. Equal Opportunity Employer.**

ATTENTION SCIENCE ADVERTISERS \$40 SPECIAL

Place your classified ad in any May-August 1992 issue of **SCIENCE** and get double exposure. We'll display the same position announcement at the **Employment Exchange** during the **AAAS Pacific Division Meeting or Science Innovation '92** for only \$40 more. That's less than the cost of one additional line.

When you place your classified ad in **SCIENCE**, simply let us know that you want to take advantage of the \$40 Special and we'll do the rest. Please specify the meeting of your choice or both meetings.

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 Innovation '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

DIRECTOR, Center for Interfacial Microbial Process Engineering, Montana State University (MSU), Bozeman, Montana, with academic appointment. Responsibilities: Represents the center; defines policies; oversees execution of programs' research, education, technology exchange, administration, and budget resources; and oversees and participates in the center programs of research, education, technology exchange, and administration.

The center was established through the NSF Engineering Research Center program in April 1990. The center receives research support from Industrial Associates (20 members) and provides outreach and technical exchange to industry. Conducts environmental biotechnology research using a process engineering approach on engineering processes related to sessile organisms and biofilms, including processes important in biofouling, biocorrosion, and bioremediation. Researchers study fundamental mechanisms of transport, microbiology, and chemistry at the molecular and micro-scale levels of observation and conduct experiments both on test bed facilities in the center and at industrial field sites.

Salary is negotiable. Starting date is 15 August 1992 or as soon thereafter as possible. For complete application materials including required and preferred qualifications, contact by telephone or FAX: **the Engineering Research Center, Attention: Diane Williams, Cobligh Hall 409, MSU, Bozeman, MT 59717; FAX: 406-994-6098; telephone: 406-994-4770.** Initial screening begins 1 July 1992; applications will be accepted until a suitable applicant is hired. *MSU is an Affirmative Action/Equal Opportunity Employer.*

GROUP LEADER, Berkeley Antibody Company (BabCO) has an immediate opening for a B.S. or M.S. with 5 plus years or a Ph.D. with 2 plus years of industrial experience in immunochemistry. Knowledge of protein purification and assay development is essential. So are supervisory experience, computer skills and communication skills. BabCO, a premier immunology organization located in the San Francisco Bay area, is committed to providing quality immunological services. Send résumé to: **4131-B Lakeside Drive, Richmond, CA 94806, Attention: K.B.**

STAFF ASSOCIATE

Nontenure-track staff position in the Department of Physiology and Cellular Biophysics. Candidates must have master's degree or equivalent, doctorate preferable. At least 3 years of professional experience is required in membrane transport, cellular interaction with extracellular matrix, measuring energy charge, analysis of cellular metabolism and protein analysis. Send application with full curriculum vitae and salary requirements to: **Dr. John Loike, Department of Physiology and Cellular Biophysics, Columbia University, 630 West 168th Street, New York, NY 10032. Columbia University is an Affirmative Action/Equal Opportunity Employer.**

The University of Iowa College of Medicine is seeking a distinguished **SCIENTIST** (clinical or basic) for a **FACULTY POSITION** to direct a new cancer research center. The center is comprehensive in scope and includes basic research, clinical research, education, epidemiology and outreach programs. This position carries with it substantial commitments in research support and space, new inpatient and outpatient facilities at The University of Iowa Hospitals and Clinics dedicated to cancer patients and opportunities for faculty recruitment. The salary will be commensurate with experience. Endowment funds are available.

Basic qualifications: M.D. or Ph.D. degree or equivalent. Nationally and internationally recognized for research in molecular science related to the broad field of cancer. The candidate must have shown ability to attract extramural funding through the National Institutes of Health or equivalent in a foreign country. Demonstrated leadership in development and coordination of interdisciplinary research programs and ability to organize a large and complex cancer center in conjunction with appropriate colleagues. Evidence of effective teaching/training experience. Evidence of effective administrative ability.

Please address letters of interest or nomination to: **Cancer Center Director Search, Office of the Dean, 212 CMAB, The University of Iowa College of Medicine, Iowa City, IA 52242. The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**



THE

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Biogen, Inc., a leader in the biopharmaceutical industry, announces an exciting new discovery effort in Medicinal Chemistry and Drug Design. Become a member of the expanding team that intercalates Chemistry, Drug Design and Pharmacology into one of the finest biotechnology groups in the world. A variety of positions are available across the spectrum of drug discovery for creative individuals with backgrounds in Organic Chemistry, Peptide Chemistry, Drug Design and Pharmacology.

Pharmacology

Positions at the Ph.D. and BS/MS levels are available for individuals experienced with in-vitro and in-vivo pharmacological methods. Demonstrated expertise with cardiovascular, inflammatory and/or immune models is especially desirable. This key group will be intimately involved in the discovery process and participate in the evaluation of drug candidates as well as coordinate activities with collaborators and with development functions.

Organic/Medicinal Chemistry

Positions are available at the BS/MS and Ph.D. levels for individuals with experience in synthetic organic and medicinal chemistry. Successful candidates will have employed asymmetric syntheses in their work as well as a variety of physical methods including 2-D NMR, Mass Spectrometry, Computational Chemistry, etc.

Drug Design

A position exists for a Ph.D. Chemist committed to experimental applications with experience in the use of computational approaches to drug design. Success in this position will require a commitment to work closely with other Chemists and Bio-Chemists in the drug design process and to contribute fundamentally to the experimental aspects of the work.

Peptide Chemistry

A key position at the Ph.D. level exists for an individual with experience and demonstrated results in the application of Peptide Chemistry to Drug Design. Broadly based knowledge and practical experience with Peptide Synthesis, especially solid phase methods, are essential. Additionally, a commitment to peptide mimetic approaches is desirable.

Biogen offers what few companies in our industry can - Scientific Challenge, Stability, Profitability, and Growth. In addition, our compensation and benefits package is one of the best in the industry, and is designed to attract and retain the finest talent available. If you are one of the best, you have an opportunity to join us now. Please forward/FAX your resume to, or call Joe Tringali at (617) 252-9802, Biogen, Inc., Ref. SC0529, 14 Cambridge Center, Cambridge, MA 02142. FAX# (617) 252-9617 Biogen is an Equal Opportunity Employer.

BIOGEN

Director Earth Sciences Division

Lawrence Berkeley Laboratory, a multi-disciplinary research and development center, funded by the U.S. Department of Energy is currently inviting applications for the position of Director, Earth Sciences Division.

The Director will coordinate a broad program of integrated research in geology, geophysics, geochemistry and hydrogeology, and will be responsible for developing interdisciplinary projects in such areas as the earth science aspects of environmental studies, petroleum reservoir engineering, nuclear waste disposal, and geothermal energy. The Earth Sciences Division has a staff of approximately 200, including 40 principal investigators and faculty scientists with an annual budget of over \$13M. The Division Director also participates in formulating the research policy and long-term direction of the Laboratory as a whole. The Director is expected to maintain a strong personal involvement in research.

This position requires a Ph.D. or equivalent in Earth Sciences or a related field, combined with a distinguished record of scientific achievement and program management. The candidate must have demonstrated capabilities in scientific leadership and must have strong management and administrative skills, creativity in decision making and problem solving and experience in human resource management.

The closing date for the submission of applications is July 30, 1992. Applicants must submit two copies of resume, salary history, and the names and addresses of three references to: **ESD Search Committee, Job H/7347, c/o Employment Office, Bldg. 90/1042, Lawrence Berkeley Laboratory, One Cyclotron Road, Berkeley, CA 94720.** An equal opportunity employer.



LAWRENCE BERKELEY LABORATORY
UNIVERSITY OF CALIFORNIA
U.S. Department of Energy

POSITIONS OPEN

THE DIVISION OF LIVER TRANSPLANTATION, DEPARTMENT OF SURGERY, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO, is seeking a candidate, in the Research Series, to **ESTABLISH AND DIRECT A MICROSURGERY FACILITY** for the purpose of contributing to a research program in reduced-size liver transplantation in rats, which will explore the in vitro basis of hepatic mass regulation. This facility will serve as resource for the department in training residents in microsurgical techniques. Primary function of candidate will be to perform successful full-size and reduced-size liver transplants in rats as a model to be used in studies of hepatic regeneration and rejection mechanisms. Candidate will participate in development of research projects and completion of program in progress. Qualified candidates must have M.D. degree, demonstrated proficiency in rat liver transplants, both full- and reduced-size, and may be able to perform heart transplants in rats and mice. Send curriculum vitae to: **Nancy Ascher, M.D., Ph.D., Department of Surgery, University of California, San Francisco, CA 94143-0780.** *The University of California, San Francisco, is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

THE HEBREW UNIVERSITY— HADASSAH MEDICAL SCHOOL JERUSALEM

FACULTY POSITION

The Faculty of Medicine invites applications for tenure-track faculty positions and for Allon Fellowship candidates leading to tenure-track positions in basic medical sciences. Preference will be given to candidates that utilize modern molecular approaches in the following areas: microbiology, human genetics, biochemistry, cell biology, developmental biology, physiology and pharmaceutical sciences. Ph.D. and/or M.D. degree and postdoctoral training are required. Excellence in research and teaching will be of prime importance in the decisions of the Search Committee. Candidates are expected to develop independent research. Curriculum vitae, list of publications, three to five selected reprints, research plans and three letters of recommendation addressed to: **The Dean, Professor S. Razin, should reach the Office of the Dean, P.O. Box 1172, 91010, Jerusalem, Israel, not later than 30 September 1992.**

FACULTY POSITION IN STRUCTURAL IMMUNOLOGY. Applications are being accepted for a tenure-track faculty position in structural immunology at the Center for Advanced Research in Biotechnology (CARB). The successful candidate will be expected to establish a vigorous research program in the structural and physical characterization of immunoglobulins and antigen/antibody complexes. Existing research areas at CARB include molecular biology, physical biochemistry, x-ray crystallography, NMR spectroscopy, protein modeling and computational chemistry. The position requires a Ph.D. in biochemistry, molecular biology, or a related field, with demonstrated experience in: hybridoma technology, production and purification of monoclonal antibodies, determination of affinity constants, crystallization of biological macromolecules, x-ray diffraction techniques including preparation of heavy atom derivatives and modeling of three-dimensional structures, cloning and expression of eukaryotic proteins with different vectors in eukaryotic and prokaryotic hosts, and site-directed mutagenesis. Prospective candidates should submit curriculum vitae and research plan and arrange for three letters of recommendation to be sent to: **Chairman of the Search Committee, Center for Advanced Research in Biotechnology, Maryland Biotechnology Institute of the University of Maryland System, 9600 Gudelsky Drive, Rockville, MD 20850.** Applications must be received before 26 June 1992.

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION at Brigham and Women's Hospital, Harvard Medical School. Position available immediately to study gene expression and biosynthesis of endothelial cell nitric oxide synthase. Applicant must have strong background in eukaryotic molecular biology, mammalian cell culture, and basic biochemistry. Submit curriculum vitae, statement of research interests, and the names of three references to: **Thomas Michel, M.D., Ph.D., Brigham and Women's Hospital, Cardiology Division, 75 Francis Street, Boston, MA 02115. FAX: 617-732-5132.**

The NATIONAL AERONAUTICS AND SPACE ADMINISTRATION and the NATIONAL RESEARCH COUNCIL announce the availability of Postdoctoral & Senior Research Associateship Awards tenable at the

John F. Kennedy Space Center, Florida.

Areas for research related to the growth of plants in space include detailed examinations of photosynthesis, carbohydrate metabolism, gene expression, and ultrastructure in higher plants grown in altered gravity or microgravity conditions. Opportunities also exist for development and testing of plant nutrient delivery systems suitable for microgravity. Areas for research related to the future development of bioregenerative life support systems include: productivity and gas exchange studies of crop communities in controlled environments, with applications toward understanding natural ecosystems; microbial ecology of nutrient solutions; microbial conversion and processing of inedible biomass for food; and control, automation and modeling of crop growth and biomass processing systems.

Research Associateship awards are offered on a competitive basis. Forthcoming deadlines are:

*August 15, 1992 for review in October
January 15, 1993 for review in February*

For further information, please write, including area of research interest, to:

**Dr. William M. Knott, MD-RES,
Kennedy Space Center, FL 32899 USA**

*Application materials may be obtained directly from:
Associateship Programs (GR 430/KF)*

**NATIONAL RESEARCH COUNCIL
2101 Constitution Avenue N.W.
Washington, D.C. 20418
FAX: (202) 334-2759**

FACULTY POSITIONS

The Department of Pharmacology invites applications for 2 tenure-track positions at the assistant, associate or full professor levels commencing October, 1992. Successful candidates will be expected to develop a strong research program preferably in cancer biology, cancer pharmacology or in the general area of growth and cell cycle regulation, and to teach medical and graduate students. The positions offer competitive salaries and laboratory start-up packages.

Application deadline is June 30, 1992. Send CV and 3 letters of reference to **Dr. Leroy F. Liu, c/o Dr. Charles Brostrom, Professor and Acting Chair, Department of Pharmacology, UMDNJ-Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635.** UMDNJ, New Jersey's university of the health sciences, is an Affirmative Action/Equal Employment Opportunity Employer, m/f/h/v, and a member of the University Health System of New Jersey.



POSITIONS OPEN

RESEARCH FACULTY POSITION HUMAN MOLECULAR GENETICS

The Coriell Institute for Medical Research (CIMR) invites applications for a faculty appointment at either the junior or senior level. Candidates must have training and experience of the highest quality and an active research program addressing fundamental questions in the area of human genetics.

The CIMR is an independent, not-for-profit research organization founded in 1953. Current programs center on growth factors, environmental toxicology, cardiovascular diseases, and cell culture. It offers an excellent research environment and facilities, start-up funds, and benefits package. Salary is negotiable. Candidates should submit curriculum vitae, statement of research interests and accomplishments, and list of three references. Review of applications will begin 1 July 1992; applications should be sent to: **Dr. David P. Beck, President, CIMR, 401 Haddon Avenue, Camden, NJ 08103.** *Equal Opportunity Employer/Affirmative Action.*

HUMAN GENETICS AT THE UNIVERSITY OF UTAH

The University of Utah, Department of Human Genetics, would like to fill a faculty position at the **RESEARCH 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.

POSTDOCTORAL POSITIONS CELL CYCLE REGULATION II

Persons interested in eukaryotic cell cycle research are invited to apply for postdoctoral positions in the laboratory of Steve Osmani [see *EMBO J.* 10, 2669 (1991); *Cell* 67, 283 (1991); *EMBO J.* 11, no. 6 (in press) for recent publications and *Nature* 353, 701 (1991) for review].

The Weis Center is a well-equipped modern research facility located in an attractive region of central Pennsylvania. Competitive salary and fringe benefits are available. For consideration, please send curriculum vitae and names of three references to: **Human Resources Department (SO), Geisinger Clinic, 100 North Academy Avenue, Danville, PA 17822-3024.**

POSTDOCTORAL POSITION to investigate the role of protein-lipid interactions in the functioning of the extrinsic membrane proteins protein kinase C and phospholipase A₂ using a range of techniques, in particular fluorescence spectroscopy. Both model lipid bilayer and cell membrane systems will be investigated. Some experience required in protein-lipid interactions with at least some experience with lipids required or, alternatively, experience in fluorescence spectroscopy. Other areas of relevant experience could include protein purification using molecular biological approaches. The position is supported by an NIH training grant and is open to *U.S. citizens or permanent residents* who have a Ph.D. and not more than 2 years of postdoctoral experience. Send curriculum vitae and names of references to: **Dr. C. D. Stubbs, #271, JAH, Thomas Jefferson University, Philadelphia, PA 19107.** *Thomas Jefferson University is an Equal Opportunity Employer committed to a smoke-free environment.*

SCIENCE

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POSTDOCTORAL SCIENTIST

Biopharmaceutical R & D

SmithKline Beecham Pharmaceuticals, a world leader in pharmaceutical research, has an exciting opportunity for a postdoctoral scientist to do research in recombinant influenza vaccines. The work will involve mapping T-cell epitopes cellular assays, and characterizing human T-cell responses to recombinant influenza proteins. The position is located in the Protein Biochemistry Department and the scientist will collaborate and train with members of other departments in immunology/virology and gene expression.

The ideal candidate will have a Ph.D. in Biochemistry/Molecular Biology with familiarity and interest in cellular immunology/virology; or a Ph.D. immunologist/virologist with interest in developing hands-on skills in protein/peptide epitope structures. Strong organizational and communication skills are required. Publication of results will be encouraged.

Our state-of-the-art research facility is located in suburban Philadelphia near Valley Forge, PA. We offer a competitive compensation/benefits/relocation package, as well as a stimulating work environment in which to grow and excel. For confidential consideration, please submit your C.V. along with the names of three references to: **Marilyn Leggieri, Associate Employment Administrator, #L0130, SmithKline Beecham, P.O. Box 1539, King of Prussia, PA 19406.** We are an Equal Opportunity Employer, M/F/H/V.



SmithKline Beecham
Pharmaceuticals

DEAN COLLEGE OF NATURAL RESOURCES UNIVERSITY OF MINNESOTA

The University of Minnesota invites nominations and applications for the position of dean of the College of Natural Resources and associate director of the Minnesota Agricultural Experiment Station. The dean is the chief executive officer of the College of Natural Resources and associate director of the Minnesota Agricultural Experiment Station with general administrative responsibility for college faculty and staff, the recurring college and station budgets, and overall management of space and facilities, including the 3,700 acre Cloquet Forestry Center. The dean and associate director reports directly to the vice president for agriculture, forestry and home economics, who is also the director of the Minnesota Agricultural Experiment Station. The person in this position shall be appointed initially to a three-year academic administrative appointment. Reappointment to annual terms rests upon successful completion of periodic reviews. Academic rank and tenure is dependent upon qualifications and vote of peer faculty in the appropriate department. Compensation, including benefits, will be at a competitive level based on qualifications and experience.

The College of Natural Resources is part of the Twin Cities campus of the University of Minnesota and is a key part of a large land-grant university that is located in a metropolitan area of about 2.2 million people. The college has a comprehensive budget of about \$10 million and outstanding undergraduate and graduate programs. The faculty are nationally and internationally known for their disciplinary and interdisciplinary programs that have contributed significantly to the land-grant and Sea Grant missions of the University.

Qualifications for the position include an earned doctoral degree; experience in forestry, forest products, fisheries and wildlife or other related natural resource programs; demonstrated record of administrative or leadership experience; demonstrated ability to work effectively with and/or lead people; and demonstrated knowledge of teaching, extension and research programs.

Send nomination(s) or an indication of interest to:

Dr. Mark L. Brenner
Associate Dean of Graduate School
University of Minnesota
417 Johnston Hall
101 Pleasant Street SE
Minneapolis, MN 55455
Telephone: (612) 626-0309
FAX: (612) 626-7431

Further information on the position and application materials will then be forwarded. Completed applications must be received by July 31, 1992.

The University of Minnesota is an equal opportunity educator and employer.

SENIOR FACULTY POSITION RUTGERS UNIVERSITY PINELANDS ECOLOGY

Rutgers University seeks a senior ecologist (Full Professor) to establish and direct a major program of research and graduate student training in the New Jersey Pinelands and wetland ecosystems. The Pinelands is a United States National Reserve, a United Nations Man and Biosphere (UNMAB) Reserve, and a National Ecological Reserve. Recent research by Rutgers faculty focuses on areas such as wetland ecology, water quality, dynamics of pollutants, fire ecology, and ecosystem fragmentation. The successful applicant is expected to complement current faculty expertise and to work closely with the State regulatory agencies toward the goal of ecological sustainability.

The position is based at the Camden Campus of Rutgers University and includes responsibility for the directorship of the Division of Pinelands Research, a part of the University-wide Institute of Marine and Coastal Sciences. The Division operates a well-equipped field station with living space for several investigators.

The applicant should demonstrate outstanding abilities to obtain funding, administer a research program, teach upper division undergraduate as well as graduate courses (one course per semester) and work on interdisciplinary projects. Send curriculum vitae and names of three references to: **Ecologist Search Committee, Office of the Provost, Rutgers University, Camden, New Jersey 08102.** For additional information, call Dr. Mark Morgan (609-757-6147) or Dr. Norbert Psuty (908-932-3384). Review of applications will start on July 1, 1992, and continue until the position is filled. *Rutgers University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL TRAINING PROGRAM IN ENVIRONMENTAL PATHOLOGY

Brown University offers a new training program in Environmental Pathology for graduate students and postdoctoral trainees. This interdisciplinary training program applies the techniques of molecular biology, cell biology, and biochemistry to explore basic mechanisms of diseases related to environmental and occupational exposures. Specific research interests represented by 14 training faculty include: mechanisms of injury produced by hexane, dioxin, or asbestos fibers; environmental stress and the immune system; apoptosis and DNA repair in lymphocytes; tumor responses to hypoxia and ionizing radiation; molecular signals in tumor progression; signal transduction by the clastin-laminin receptor; tumor promoters and protein tyrosine kinases; growth factors and adhesion molecules in carcinogenesis; interaction between papillomavirus and other co-factors in cervical carcinogenesis; oncogenes, growth factors and stem cells in liver regeneration and carcinogenesis; and biochemical and molecular mechanisms of pulmonary fibrosis.

U.S. citizenship or permanent residency required. Applications from members of minority groups are especially encouraged. Send CV and 3 letters of reference to: **Agnes B. Kane, M.D., Ph.D., Training Program Director, Department of Pathology and Laboratory Medicine, Brown University, Providence, RI 02912.** Screening of applicants will begin on July 1, 1992 and continue until the positions are filled.

Brown University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION is available to investigate intracellular signal transduction in platelets. Experiments will examine a cytoskeletal protein that is both a cAMP-dependent protein kinase substrate and a member of the Ras superfamily of GTP-binding proteins. Recombinant DNA as well as traditional biochemical methods will be utilized. Send curriculum vitae and two letters of reference to: **Nancy Andrews, Center for Thrombosis and Hemostasis, CB #7015, 435 Burnett-Womack Building, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599.**

POSTDOCTORAL POSITIONS

Two postdoctoral positions available at the nationally recognized Fox Chase Cancer Center to investigate: (1) the transcriptional regulation of meiotic development in *S. cerevisiae* or (2) the molecular structure and function of vertebrate mitotic motors responsible for chromosome segregation. Candidates with molecular or biochemical experience preferred. Applicants should submit curriculum vitae and letters to: **Dr. R. Strich (1) or Dr. T. Yen (2), c/o Personnel Office, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111.** *Equal Opportunity Employer. M/F/H/V.*

POSTDOCTORAL POSITION for investigations on the molecular and biochemical properties of calmodulin-dependent nitric oxide synthases. Opportunities exist for collaborative research in a multidisciplinary training program involving structural analyses of regulatory domains to cellular modes of protein expression and regulation. Previous experience with recombinant DNA methodology desirable. Please address inquiries to: **James T. Stull, Ph.D., Department of Physiology, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9040, telephone: 214-688-6849, FAX: 214-688-2974.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION: CELLULAR AND MOLECULAR NEUROENDOCRINOLOGY, available July 1992 for research in studying estrogen-regulated growth factor(s) gene expression and function in the pituitary during tumorigenesis. Experience with recombinant DNA technology and cell cultures required. Send curriculum vitae and three letters of reference to: **Dr. Dipak K. Sarkar, Department of VCAPP, Washington State University (WSU), College of Veterinary Medicine, Pullman, WA 99164-6520. FAX: 509-335-4650.**

WSU is an Affirmative Action/Equal Opportunity Employer. Protected group members are encouraged to apply.

POSTDOCTORAL POSITIONS are available in NIMH-, NIDA- and NIAAA-funded training programs for candidates with a strong background in neuroscience, molecular genetics, epidemiology, or genetic epidemiology. The Department of Psychiatry has an active program of research on substance abuse, including studies of receptor and endocrine mechanisms, and of the epidemiology, genetics and nosology of substance-use disorders and related psychiatric disorders. Individuals with an M.D. or Ph.D. who are U.S. citizens or permanent residents are eligible. Send curriculum vitae, statement of research interest and background, and three letters of reference to: **Dr. Andrew Heath or Dr. Theodore Cicero or Dr. Linda Cottler, Department of Psychiatry, Washington University School of Medicine, 4940 Audubon Avenue, St. Louis, MO 63110.** *Washington University is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

A POSTDOCTORAL POSITION in molecular biology is available to study the structure and function of the Golgi apparatus. The process of protein traffic through the Golgi will be examined as well as interaction of this organelle with microtubules. In vitro biochemical and molecular genetic approaches will be employed. Please send (or FAX) curriculum vitae and the names, addresses, and telephone numbers of three references to: **Personnel Manager, Department of Molecular Biology, Lewis Thomas Laboratory, Princeton University, Princeton, NJ 08544. FAX: 609-258-1701.**

Princeton University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

TWO POSTDOCTORAL POSITIONS available to study the biochemistry and molecular genetics of glycoprotein degradation in lysosomes. Major research projects include structure/function of enzymes, associated problems in human genetic disease and evolution of the pathway [FASEB J. 3, 2615 (1989); J. Biol. Chem. 266, 12105 (1991); FEBS Lett. 288, 168 (1991); Mol. Cell Biol. 12, 1585 (1992)]. Prior training in molecular biology required. Position to begin after 1 July 1992 and available for 3 years. Salary: \$23,000 per year. Send curriculum vitae, representative publication, and names of three references (by 15 July 1992) to: **Dr. Nathan N. Aronson, Chairman, Department of Biochemistry, University of South Alabama, College of Medicine, Mobile, AL 36688.** *The University of South Alabama is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW

Postdoctoral fellowship available immediately for recent Ph.D. to work on PDGF signal transduction mechanism using digitized video and confocal microscopy, caged compound and in situ hybridization techniques. Send curriculum vitae and three references to: **Dr. Brian Herman, Department of Cell Biology and Anatomy, University of North Carolina, CB #7090, 232 Taylor Hall, Chapel Hill, NC 27599.** *An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

RESEARCH ASSISTANT PROFESSOR POSTDOCTORAL FELLOW

Positions available immediately in research to develop a birth control vaccine using sperm adhesion proteins or to analyze molecular mechanisms in mammalian fertilization. Individuals with Ph.D. or M.D. and training in immunology, vaccinology, molecular biology or cell biology are encouraged to apply. Openings are in the Contraceptive Development Center at the University of Connecticut Medical School. The Contraceptive Center is supported by a center grant from NIH and by the Mellon Foundation. Excellent salary and benefits commensurate with experience.

Applications should include a cover letter, curriculum vitae, bibliography, three letters of recommendation and reprints of any recent publications. Send applications to: **Dr. Paul Primakoff, Department of Physiology, MC-3505, University of Connecticut Medical School, Farmington, CT 06030.** *The University of Connecticut Health Center is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE.

Position available immediately to investigate the molecular genetics of cytochrome P450 monooxygenase-mediated insecticide resistance. Relevant expertise in molecular genetics, PCR, recombinant DNA technology and/or protein biochemistry preferred. Send curriculum vitae, a brief statement of research interests and three letters of reference to: **Dr. J. G. Scott, Department of Entomology, Comstock Hall, Cornell University, Ithaca, NY 14853, FAX: 607-255-0939.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION IN LASER OPTICS/PHYSICS. The Department of Oral Sciences, Eastman Dental Center, Rochester, New York, seeks applicants for a **POSTDOCTORAL RESEARCH** position, beginning as soon as possible and funded by an NIH grant for 3 years. A Ph.D. in physics or optics is required, with training in lasers. A working knowledge of CO₂ lasers is an advantage. Research in laser interactions with dental hard tissues has been ongoing for 8 years in conjunction with the nearby University of Rochester Laboratory for Laser Energetics. The position will require work at both facilities on fundamental aspects of laser/mineral interactions, in a multidisciplinary medical, dental and basic research community. Submit curriculum vitae, reprints, and names of references to: **Dr. J. D. B. Featherstone, Chairman, Department of Oral Sciences, Eastman Dental Center, Rochester, NY 14620.** *An Equal Opportunity Employer.*

Postdoctoral Opportunities.

Listed below are a few of the excellent opportunities for conducting research that are now available with leading scientists at the National Institutes of Health.

Biochemistry/Molecular Biology of Ascorbic Acid **Mark Levine, MD**

The translocation of ascorbic acid (vitamin C) across cell membranes and its action on gene transcription are being studied. Ascorbic acid's regulation of oxidant quenching in human neutrophils and collagen biosynthesis in human fibroblasts and its pharmacokinetics in humans are also being examined. Background in protein chemistry, enzyme kinetics, or molecular genetics preferred. Level of appointment is dependent upon experience. Laboratory of Cell Biology and Genetics (OE-13), NIDDK, Building 8, Room 415.

Gene Expression/Cell Biology **Richard Maraia, MD**

Developmental and tissue-specific expression of RNA polymerase III-dependent small cytoplasmic RNAs, their assembly into ribonucleoprotein particles, and their effects as trans-acting factors on cellular functions are studied. Background in eukaryotic transcription, RNA processing, RNA-protein interactions, and *in vitro* translation are preferred. Laboratory of Molecular Growth Regulation (OE-13), NICHD, Building 6, Room 416.

Gene Expression in the Hypothalamus **W. Scott Young, III, MD, PhD**

Central nervous system function is being investigated utilizing techniques ranging from expression cloning and homologous recombination to *in situ* hybridization and immunohistochemistry. In particular, these techniques are used to study the regulation of gene expression in the hypothalamus, including the role of trans-acting factors. Candidates must have three or fewer years of postdoctoral experience. Laboratory of Cell Biology (OE-13), NIMH, Building 36, Room 2D10.

Gene Regulation and Expression **Ravi Dhar, PhD**

The fission yeast *Schizosaccharomyces pombe* is being used to conduct research in gene regulation and expression. Genes encoding factors that regulate mammalian and viral promoters are being isolated by complementation analysis. The mechanism by which mRNA is transported is also being studied. Candidates must have

three or fewer years of postdoctoral experience. Laboratory of Molecular Virology (OE-13), NCI, Building 41, Room B506.

Molecular Genetics **Susan R. Haynes, PhD**

RNA binding proteins involved in packaging and splicing premessenger RNA in *Drosophila melanogaster* are being studied. Projects include structure/function analyses of RNA binding proteins in transgenic *Drosophila* strains, characterization of sequences involved in regulating the expression of the genes encoding these proteins, and identification of mutations in these genes and analysis of their effects on RNA processing. Laboratory of Molecular Genetics (OE-13), NICHD, Building 6B, Room 3B331.

Molecular Hematology **Helene F. Rosenberg, MD**

The molecular events involved in the formation of the distinctive granules of human neutrophils and eosinophils are currently under study in order to determine the genetic factors regulating granule protein biosynthesis and localization. Background in molecular biology and biochemistry is desirable. Recent graduates are encouraged to apply. Laboratory of Host Defenses (OE-13), NIAID, Building 10, Room 11N114.

Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings you may access the NIH EDNET Bulletin Board's POSTDOC conference via modem (1,3014922221 or 1,8003582221). The settings for modem access are "7,Even,1". When connected to NIH, type in "vt100" at the connect message, "F5E" at initial, and "AJL1" at account.

Those interested in receiving a catalog featuring descriptions of NIH research laboratories and other postdoctoral opportunities, as well as information on clinical training opportunities, may contact the Office of Education, Building 10, Room 1C129. Phone: 301-496-2427.

To Apply

If you hold a PhD, MD, or equivalent degree and would like to be considered for one of these positions, please send a cover letter, curriculum vitae, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



National Institutes Of Health

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**US Environmental Protection Agency
Health Effects Research Laboratory
Developmental Toxicology Division**

INVITES PROPOSALS FOR A COOPERATIVE
AGREEMENT TO DEVELOP:

**"IN VITRO MODELS OF EMBRYONIC
DEVELOPMENTAL TOXICITY"**

The EPA is mandated to assess risks associated with exposure of the developing fetus to environmental agents. New information on molecular and cellular mechanisms of developmental toxicity in the human is essential to more accurately assess these risks. We are seeking projects to study cultured human embryonic tissues which develop/differentiate *in vitro*. Examples of such models include, but are not limited to, palatal organ culture, limb bud organ culture, micromass culture, and epithelial cell culture. Laboratories currently using mammalian embryonic *in vitro* techniques are therefore encouraged to submit pre-proposals. Preference will be given to proposals which address the relevance of the model and the selected endpoints through correlation with responses of cultured animal tissue/organs and with data from *in vivo* animal studies. Some of these goals may be achieved through interactions with on-going research efforts at EPA. EPA will have significant involvement in this project and information generated by this collaborative study will be incorporated into biologically based dose-response (BBDR) models currently under development at EPA. Pre-proposals should be brief (5-10 pages) and describe the proposed *in vitro* model, including prior application of model to animal or human tissue/cells, candidate chemicals to be used in the research, cellular and molecular approaches to be used, proposed strategy for validation of findings, cost estimates and staff qualifications. Following review of pre-proposals, selected applicants will be asked to submit final proposals, which must be cleared through appropriate institutional review boards. It is anticipated that funding will be \$110,000 per year (including indirect costs) for up to 3 years. DEADLINE for receipt of pre-proposals is July 2, 1992. To submit proposals or for additional information: FAX (919) 541-4017; or MAIL: RIIHRA Pre-proposal, Developmental Toxicology Division (MD-71), Health Effects Research Laboratory, US EPA, Research Triangle Park, NC 27711. This solicitation is subject to parts 30 and 40 of EPA Grant Regulations, therefore profit-making organizations are prohibited from applying. EPA reserves the right not to make any awards from this solicitation.

POST-DOCTORAL SCIENTIST

The Upjohn Company, a recognized leader in pharmaceutical research and development has an excellent opportunity for a Post-Doctoral Scientist. The successful candidate will investigate the regulation of neurotransmitter receptors by psychoactive drugs in the brain.

Recent doctorates in science with molecular biology and neurobiology backgrounds are invited to apply. Post-doctoral appointments are for one year, renewable for a second year. The Upjohn Post-Doctoral Program is designed to provide a top quality research experience and the opportunity to publish scientific results with an excellent salary and benefits package offered. Our modern research laboratories are located in Kalamazoo, a southwestern Michigan community located midway between Detroit and Chicago. For confidential consideration, please submit your curriculum vitae to: THE UPJOHN COMPANY, Corporate Employment/Specialty Code #122, 7000 Portage Road, Kalamazoo, MI 49001. Please refer to Specialty Code #122 in your cover letter. An Equal Opportunity Employer M/F.

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CAROLINA WORKSHOPS

University of North Carolina
at Chapel Hill

cDNA CLONING & GENE EXPRESSION
October 18-November 1, 1992

A general DNA techniques workshop focusing on synthesis of cDNA and cloning into lambda vectors. Techniques will include mRNA isolation, Northern transfer and hybridization, cDNA synthesis, adapter facilitated cloning into lambda vectors, subcloning into plasmid vectors, and DNA sequencing. Libraries will be screened with antibodies and DNA probes. Additional techniques to be utilized as time permits will include computer analysis of DNA sequence data. Students may bring their own mRNA preparations for construction and cDNA libraries. Tuition is \$2,150.

To apply, send a curriculum vitae and a brief letter describing your research interests and their relevance to the Workshop for which you apply. Applicants should contact the program office as soon as possible. Please indicate your complete mailing address and telephone/fax number. Full consideration will be given to applications received by August 17, 1992.

INSTRUCTORS:

David Joseph, Ph.D., UNC-CH
Richard Ogden, Agouron Institute

FUTURE CAROLINA WORKSHOPS:

Mutagenesis--Spring, 1993
In Vitro Transcription--Summer, 1993

For further information or to apply, contact:

Dr. Wayne Litaker, Facility Director
University of North Carolina at Chapel Hill
Program in Molecular Biology & Biotechnology
402 Taylor Hall CB 7100 S
Chapel Hill, North Carolina 27599-7100
TELEPHONE (919) 966-1730, FAX (919) 966-6821

CANADIAN NETWORK OF TOXICOLOGY CENTRES

Position Available

Executive Director, Toxicology

The Executive Director, Toxicology, will be responsible for the effective administration of the Canadian Network of Toxicology Centres. This Network has received five year funding from Canada's Green Plan and consists of three Nodes:

- The Toxicology Research Centre, University of Saskatchewan
- The Centre interuniversitaire de recherche en toxicologie, Université de Montréal and Université du Québec à Montréal, and
- The Centre for Toxicology, University of Guelph

The Green Plan funding of the Network will be administered by the University of Guelph and the Executive Director will be appointed at that location. He/she will report to the Network Management Committee of the Network Board of Directors, and will be expected to achieve coordination of research activities and technology transfer in toxicology among the three Nodes and be responsible for external relationships with other universities, granting councils and agencies, governments, industry and counterpart institutions.

The candidate selected will be a recognized scientist with extensive knowledge and experience in one or more fields of toxicology and a broad understanding of research and information needs appropriate to Canada's priorities in toxicology. He/she will have proven management and personnel skills and will engender a positive atmosphere of excellence, accomplishment and confidence. He/she must be able to set priorities, monitor accomplishments and communicate results. A working knowledge of the French language is a requirement of this position.

The successful candidate will be appointed before April 1st, 1993, for an initial four year period. Depending on the mutual interests of the candidate and the University, a tenured or tenure-track appointment in an appropriate university department may be available.

The salary level will be consistent with the experience and qualifications of the appointee.

The University of Guelph is committed to an Employment Equity Program that includes special measures to achieve diversity among its faculty and staff. We, therefore, particularly encourage applications from qualified aboriginal Canadians, persons with disabilities, members of visible minorities and women. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

Interested applicants should provide a full curriculum vitae, a list of three references and apply to: Dr. L.P. Milligan, Vice-President, Research, University of Guelph, Guelph, Ontario N1G 2W1.

UNIVERSITY OF GUELPH

Postdoctoral Position in Signal Transduction

The PARKE-DAVIS Pharmaceutical Research Division of Warner-Lambert Company has a postdoctoral position available immediately for an independent and highly motivated scientist with experience in molecular biology to study signal transduction by the epidermal growth factor receptor and cell cycle dependent regulation of the activities of protein kinases and phosphatases.

Ongoing work includes: 1) the role of phosphorylation of the EGF receptor in regulation of receptor function; 2) characterization of effector proteins involved in intracellular signalling by growth factor receptors; 3) the role of serine/threonine specific protein kinases in intracellular signalling; 4) involvement of EGF-dependant proteolytic processing of the EGF receptor in receptor function.

Candidates should be recent PhD graduates with a strong background in molecular biology, cell biology, biochemistry or a related area.

Compensation includes a competitive salary, an attractive benefits package and relocation assistance. Send curriculum vitae and list of references to **PARKE-DAVIS, Human Resources, Box JDM-0048, 2800 Plymouth Road, Ann Arbor, MI 48105.** "Smoke-Free Work Environment"

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LAMBERT**



Protein Chemist

CIBA-GEIGY Agricultural Division's Biotechnology Research Unit in Research Triangle Park, NC seeks a Protein Chemist to provide protein sequence analysis as a unit-side service and to contribute protein purification expertise to various projects in plant genetic engineering.

The qualified candidate will have a BS/MS in Chemistry or Biology, as well as 3-5 years' experience in protein sequence analysis, amino acid analysis and protein purification.

We offer a competitive salary and a generous company-paid benefits package. Please send resume, transcripts and three letters of professional reference to: **Manager, Human Resources, Dept PC, CIBA-GEIGY Corporation, Agricultural Division, 3054 Cornwallis Road, Research Triangle Park, NC 27709.** We Are An Equal Opportunity Employer M/F/H/V.

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National Institutes of Health

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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Bio-Rad Laboratories, a leading supplier of Life Science and Clinical Diagnostics products, is developing novel molecular diagnostic products for genetic and infectious diseases.

R&D Manager — Lead the research and development of DNA-based diagnostics products. The ideal candidate will have an MD degree with significant research experience in molecular biology, genetics or amplification based DNA-diagnostic methodologies. Industrial product development experience is an advantage.

Research Scientist — The ideal candidate must have at least an MS degree or equivalent experience to participate in the development of DNA-based diagnostics with significant research experience in molecular biology, genetics or nucleic acid amplification methods.

For consideration, please send your resume to: Bio-Rad Laboratories, Attn: Mary Ann Rafferty, Dept. 224, 2000 Alfred Nobel Dr., Hercules, CA 94547. An Equal Opportunity Employer M/F/H/V.

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NANOTECHNOLOGY

Reprint

Engineering a Small World:
From Atomic Manipulation to
Microfabrication

This 42-page special section, reprinted from the 29 November issue of *SCIENCE*, is your entry to the expanding world of small-scale engineering. It's a field that spans microelectronics, materials science, chemistry, molecular biology, and microscopy. In this special section, ten illustrated articles by research leaders and by science journalists present the full scope of this small world.

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POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE UNIVERSITY OF TENNESSEE MEDICAL CENTER/KNOXVILLE HUMAN IMMUNOLOGY AND CANCER PROGRAM (DIRECTOR: DR. ALAN SOLOMON)

Position is available to study the regulation of human Ig V_L gene expression. Additional opportunities are available to study the pathogenesis of human AL amyloidosis in animal models. Candidates must have a recent Ph.D. in molecular biology or related fields. This position requires expertise in recombinant DNA techniques, expression gene constructs, DNA transfection, and nuclear protein-DNA interactions. Preference will be given to candidates with proven experience in the studies of transcriptional controls of gene expression in vivo and in vitro. Send curriculum vitae and names of three references to:

Dr. Lan-Yan Ch'ang, Human Immunology and Cancer Program, University of Tennessee Medical Center/Knoxville, 1924 Alcoa Highway, Knoxville, TN 37920. Telephone: 615-544-9165; FAX: 615-544-8888. Equal Employment Opportunity/Affirmative Action/Title IX/Section 504/ADA Employer.

RESEARCH ASSOCIATE, CYTOMETRY

The Department of Pathology, Emory University School of Medicine, is recruiting a research associate for the cytometry laboratory at Grady Memorial Hospital. The position involves the routine performance of current and developing cytometric tests for the clinical laboratory and the development of additional cytometric tests. Most importantly, the laboratory will work in close collaboration with the molecular pathology laboratory in application of cytometric techniques to evaluation of cells and tissues marked with molecular biologic reagents. The minimum requirements are a Ph.D. degree and experience documented by publications in cytometry. Send letter of application and names of four professional references to: Kenneth W. Sell, M.D., Ph.D., Professor and Chairman, Department of Pathology and Laboratory Medicine, Room 703 Woodruff Memorial Building, Emory University, Atlanta, GA 30322. Emory University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

The Division of Geographic Medicine at Case Western Reserve University is seeking a Ph.D. or M.D. immunologist for a position as a SENIOR RESEARCH ASSOCIATE OR INSTRUCTOR to work in an amebiasis vaccine program. A successful candidate will have at least 2 years of postdoctoral experience and be able to eventually develop an independently funded program in this area. Please respond to: Dr. Jonathan I. Ravdin, M.D., Chief, Medical Service, VA Medical Center 111-W, 10701 East Boulevard, Cleveland, OH 44106.

RESEARCH ASSOCIATE position in Cornell University's Genome Variation Analysis Facility to provide technical expertise (e.g., DNA fingerprinting, RFLP analysis, molecular systematics) for a new multiuser facility for identifying and quantifying variation among genomes. Ph.D. required. Initial 2-year position. Salary range: \$24,000 to \$30,000 per year. Send curriculum vitae, three letters of reference, relevant reprints, and statement of how candidate would contribute to a multiuser facility by 1 July 1992 to: Dr. Bernie May, Cornell Biotechnology, Cornell University, Ithaca, NY 14853-2703. Cornell is an Equal Opportunity Employer.

FREE PRODUCT INFORMATION SERVICE

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1333 H Street, NW
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POSITIONS OPEN

CELLULAR AND MOLECULAR HEMATOPOIESIS

RESEARCH INVESTIGATOR to join group studying stem cell regulation, with projects including: (1) novel stem cell cytokine receptor genes; (2) stromal cell cytokine production and regulation; (3) T cell pathway-specific cytokine induction; and (4) hematopoiesis following bone marrow transplantation. Applicant should have demonstrated experience in mammalian cell culture and molecular biology. Appointment to be at the level of **POSTDOCTORAL FELLOW** or **ASSISTANT RESEARCH SCIENTIST**, depending upon qualifications. Applications, including three references, should be sent to: Stephen G. Emerson, M.D., Ph.D., Cell and Molecular Biology Program & Department of Internal Medicine, University of Michigan, Room 5510B MSRB1, 1150 West Medical Center Drive, Ann Arbor, MI 48104. An Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSISTANT II

Isolation and purification of proteins by column chromatography, high-performance liquid chromatography, fast-performance liquid chromatography and gel electrophoresis; crystallization of proteins by various techniques, including vapor diffusion, liquid diffusion and gel methods; determination of the three-dimensional structure of proteins by x-ray diffraction. B.S. in physics with 4 years of biochemical research experience with liquid chromatography, fast-performance chromatography and electrophoresis; experience with x-ray diffractometers, area detectors, computer and graphics systems and software for protein structure determination. Work: 8:00 a.m. to 5:00 p.m., 40 hours per week. Salary: \$24,255 per calendar year. Contact: Sandra T. Starnes, Alabama State Employment Service, 3440 Third Avenue South, Birmingham, AL 35222, RE: Job Order AL0228726.

RESEARCH ASSOCIATE

Position available immediately in the Division of Infectious Diseases, Departments of Pediatrics and Microbiology/Immunology for a research associate with Ph.D. and postdoctoral experience. Specific projects include molecular genetics of iron acquisition of *H. influenzae*, construction of novel vectors, and new approaches to bacterial molecular epidemiology. Send curriculum vitae and the names of three references to: Dr. Terrence L. Stuss, Professor, Departments of Pediatrics and Microbiology/Immunology, MEDICAL COLLEGE HOSPITALS, Main Clinical Campus, 3300 Henry Avenue, Philadelphia, PA 19129. Equal Opportunity Employer.

RESEARCH ASSOCIATE/POSTDOCTORAL POSITIONS in neuroscience are available to study the electrophysiology and/or the molecular biology of voltage- and ligand-gated ion channels. Studies will involve electrophysiologic analysis using patch clamp techniques and the molecular characterization of ion channels in relation to aging and age-related neurologic disorders. Candidates should have a Ph.D. and experience in fields related to the area of study. Salary range: \$25,000 to \$30,000 per year depending on experience. Send curriculum vitae and names of three references to: Dr. Philip W. Landfield, Department of Pharmacology, University of Kentucky, College of Medicine, 800 Rose Street, Lexington, KY 40536. Telephone: 606-233-6209; FAX: 606-258-1981. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

THE UNIVERSITY OF CALIFORNIA, SAN DIEGO, is seeking a Ph.D. applicant for a **POSTGRADUATE RESEARCHER**. Candidates should have experience in molecular biology and retrovirology or herpesvirology to conduct research in AIDS pathogenesis and the role of viral cofactors. Position available immediately for at least 2 years. Salary range based on University of California policy. Interested individuals should send curriculum vitae with a list of three references no later than 31 January 1993 to: Stephen A. Spector, M.D., Professor, Department of Pediatrics and Center for Molecular Genetics, 9500 Gilman Drive, #0672, La Jolla, CA 92093. Equal Opportunity/Affirmative Action Employer.



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This is a management position responsible for water quality laboratory and surface water quality data collection services including managing a laboratory with a capacity of approximately 160,000 inorganic, nutrient and physical analyses annually, and contracts for organic analyses. The selected candidate will direct surface water quality monitoring and field data collection in support of the District's planning, operational and regulatory needs and supervise an off-site facility.

The requirements for this position are a Master's degree in Analytical or Environmental Chemistry supplemented with coursework or advanced study in a related field. Experience with auto samplers, nutrient monitoring networks, agricultural best management practices and field/laboratory quality assurance procedures preferred, along with contract administration experience and familiarity with both organic and inorganic chemistry analytical procedures. Over 7 years' related experience, including 2 years' direct supervisory experience, required. LIMS and relational database management systems experience required.

The District offers a competitive compensation package and a drug- and smoke-free work environment. Please forward your resume to: Human Resources Division, Re: S/692/DWQ, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416-4680. We are an equal opportunity employer m/f/d/v.

South Florida Water Management District

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Julius-Maximilians University, Würzburg, Germany Centre of Infectious Diseases Group Leader Positions

The faculties of medicine and biology have formed a centre for the study of infectious diseases that comprises research groups in clinical medicine, pathology, immunology, virology, bacteriology and molecular biology. It is planned to extend the interests of the centre through the incorporation of the following new research areas:

the immunology and molecular biology of parasitic infections
the immunology and molecular biology of fungal infections

Young scientists who have earned international recognition in one of the above fields will have the opportunity to establish an independent group for the pursuit of their research goals.

The appointment of group leaders will be for a period of five years. The salary will be commensurate with training and experience and can be up to US \$65,000.

Laboratory operating expenses and funding for additional personnel (post doc, post graduate students, technicians) will be granted by the Bundesministerium für Forschung und Technologie for each group on the basis of proposals submitted by the successful candidates. Laboratory facilities will be provided by the University of Würzburg.

Applications for these positions should be sent by July 30, 1992 to

Prof. Dr. Volker ter Meulen
Institut für Virologie und Immunbiologie
Versbacher Str. 7
D-8700 Würzburg, Germany

Initial applications should include a CV, a list of publications and a brief research proposal. Short-listed candidates will be requested to submit a detailed research proposal that will be forwarded for review by a commission appointed by the Bundesministerium für Forschung und Technologie.



THE UNIVERSITY
OF QUEENSLAND

Equal opportunity in employment is University policy.

Lectureship in Zoology (Tenurable)

Applicants should be Zoologists with an appropriate doctoral degree. Preference may be given to an applicant with demonstrated research expertise in a significant field of Developmental Biology/Embryology. The successful applicant will be responsible to the Head of the Department of Zoology (Professor Gordon Grigg) and will be expected to develop senior level teaching, as well as participate in teaching at First and Second Levels, develop an active research program and attract postgraduate students and external research funding.

Salary within the range \$39,463 to \$48,688 p.a.

The Department of Zoology has 17 academic staff and 20 support staff. Research interests include terrestrial and marine ecology, genetics, conservation biology, systematics, evolutionary biology, palaeontology, animal physiology, histology and cytology. Departmental facilities include an electron microscope unit, sea water aquarium system, aquaculture ponds, aviaries, a 16 m trawler, laboratories equipped for experimental physiology, histology, cytology and molecular genetics, and field stations on Stradbroke Island in Moreton Bay and Heron Island on the Great Barrier Reef. Recent University initiatives involving Zoology include Centre for Conservation Biology, Aquaculture Group, School of Marine Science, Centre for Molecular Biology and Biotechnology, and Vision Touch and Hearing Research Centre.

Closing date: 31 July, 1992. Applications quoting reference no. 21592 to Director, Personnel Services, The University of Queensland, 4072, Australia. More information: Professor Gordon Grigg, Department of Zoology. Phone: (07) 365-2471, Fax: (07) 365-1655.

Opportunities with Monsanto Company

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A position is available in the plant protection group of the new products division in the area of cloning and expression analysis of genes for controlling insects and fungal pathogens. This position is part of a multi-disciplinary team leading to commercialization of insect- and disease-resistant crops.

Qualifications include a BS, MS or Ph.D. (preferred) in molecular biology or biochemistry or appropriate discipline with broad technical experience in molecular biology. You must have substantial experience in cloning and expression analysis of prokaryotic/eukaryotic genes. Excellent interpersonal and communication skills are required.

We offer a highly competitive salary and benefits/relocation package. Please send your Curriculum Vitae, names of three references and a statement of your career and/or research interests to: Mrs. Marion K. Doyle, Supervisor, Human Resources-O3H, Monsanto Company, 800 N. Lindbergh Blvd., St. Louis, MO 63167. EOE. M/F/D/V.

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APPLICATIONS TO HOST SCIENTISTS & ENGINEERS FROM THE FORMER SOVIET UNION

The National Research Council invites applications from American laboratories which wish to host colleagues from the former Soviet Union (FSU) for one academic year (up to nine months) to carry out joint research in U.S. universities and research institutions. Nine month incentive grants will be in the range of \$10,000 - \$12,000. This program, which is funded by the U.S. Agency for International Development, will help FSU scientists and engineers who have worked in defense related research in the FSU to apply their skills to civilian activities.

American hosts and FSU specialists must possess doctoral degrees or their equivalent six months prior to the requested beginning date of the visits. Proposals are invited in the following fields: applied mathematics/statistics, control theory, computer science, aeronautics, applied physics, materials science, nuclear science, electronics, chemistry, microbiology, virology, and all branches of engineering. Although priority will be given to FSU specialists in defense related fields, other fields or specialists not previously engaged in defense work will be considered on a case-by-case basis.

All visits must commence in calendar year 1992 or 1993.

Application deadlines for this program:

- (1) July 3, 1992; Notification: Aug. 1992
- (2) September 14, 1992; Notification: Nov. 1992
- (3) March 1, 1993; Notification: May, 1993

Requests for application packets: Office for Central Europe and Eurasia; National Academy of Sciences; 2101 Constitution Avenue, NW (F02014); Washington, DC 20418; Telephone*: 202-334-3680; Fax: 202-334-2614; Bitnet: IBrikovs@NAS

*Please specify "Visiting FSU Scholars Program, 1992/1993"

Cooperative Research Units

U.S. FISH AND WILDLIFE SERVICE

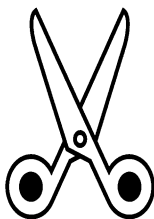
The U.S. Fish and Wildlife Service invites applications for Research Fishery Biologists (GS-482-11/12) to serve as the Assistant Unit Leader for Fisheries at the Arizona Cooperative Research Unit. The successful candidate will be located at the University of Arizona in Tucson, Arizona, and will receive a no salary faculty appointment.

Assistant Unit leader duties include establishing a strong research program, teaching at the graduate level, and technical assistance to resource managers on fisheries and contaminant resource issues.

Requirements of the position include a record of research productivity or resource management training and experience, an ability and commitment to teach, and an ability to administer research grants and program budgets. Candidates must meet the requirements (earned doctorate) for a faculty appointment.

For application details, contact Dr. O. Eugene Maughan (602/621-1193) or (602/621-3845). To apply directly, send a completed Standard Form 171 and OPM Form 1170 (List of College Courses) to **Ms. Dot Easley, Personnel Division, Research and Development, U.S. Fish and Wildlife Service, mail stop ARLSQ 725, Washington, DC 20040 (phone number 703/358-1771)**. Applications must reference the Arizona Assistant Unit Leader-Fisheries position, and must be postmarked no later than June 29, 1992.

The Fish and Wildlife Service and the University of Arizona are Opportunity Employers. Applications are encouraged from women and minority candidates.



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Candidates should have experience in immunoassays, purification and characterization of polysaccharides and proteins, vaccine development, antibody analysis and microbiology. Knowledge of infectious diseases, immunology and biochemistry are critical to success in these roles. Candidates with educational backgrounds in biochemistry, microbiology or a related discipline are encouraged to apply.

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VANDERBILT UNIVERSITY**

Vanderbilt University invites applications and nominations for the position of Dean, College of Arts and Science.

The Dean bears chief responsibility for the academic, fiscal, and administrative leadership of the College of Arts and Science and reports directly to the Provost. We seek a distinguished scholar with outstanding abilities in leadership and administration, who is capable of fostering high quality research and teaching. Candidates must qualify for appointment to the rank of Full Professor with tenure in a department of the College.

Vanderbilt University, an independent, private institution founded in 1873, has approximately 9,000 students and 1,400 full-time faculty members on a single campus. Its schools include the College of Arts and Science, the Graduate School, Blair School of Music, Owen Graduate School of Management, Peabody College, and the schools of Engineering, Law, Medicine, and Nursing.

The College of Arts and Science, with approximately 3,400 undergraduate and 600 graduate students, occupies a central position within the University. Its more than 300 full-time faculty members, in 22 Departments and 12 Programs, pursue a broad range of activities in teaching and research.

Vanderbilt University is committed to the principles of diversity and affirmative action. It strongly encourages nominations of, and application by, minority and female candidates. Vanderbilt is an Affirmative Action, Equal Opportunity Employer.

Applications should include a letter of interest, a *curriculum vitae* and the names, addresses, and telephone numbers of at least four references. Nominations should be made by letter. Please send these materials to:

**Professor Randolph Blake, Chair
College Deanship Search Committee
Office of the Provost
221 Kirkland Hall
Vanderbilt University
Nashville, Tennessee 37240
FAX: 615-322-7629**

The Search Committee will begin reviewing applications immediately and continue until the position is filled.

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DRUG METABOLISM

Pharmacokinetic/Pharmacodynamic

Ph.D. Scientist responsible for the development of preclinical pharmacokinetic/pharmacodynamic (PK/PD) programs in support of disposition studies of new drug candidates. Experience in the design and interpretation of PK/PD studies including a thorough understanding of computer programs utilized in PK/PD modeling is necessary. Candidates should have a Ph.D. in Pharmacokinetics, Biopharmaceutics or a related discipline and 3-5 years relevant experience. **(Position #427)**

Drug Disposition

Ph.D. Scientist responsible for conducting studies to evaluate the metabolic disposition of new drug candidates in biological samples. This will include the development of analytical methodology for the quantitation of drugs and metabolites in biological matrices. Ph.D. in Chemistry, Biochemistry, Pharmacology or related Biological discipline and 0-3 years experience in HPLC and performing extractions of biological samples. **(Position #431)**

CARDIOVASCULAR METABOLIC DISORDERS

Cellular/Molecular Biologist

This B.S./M.S. position will be primarily responsible for developing and maintaining cell lines, undertaking basic research projects involving cell growth and proliferation, as well as identifying and developing novel cardiovascular pharmaceutical agents. We seek a BS/MS with extensive experience in cell biology including tissue culture, monoclonal antibody production and Northern blot analysis. Experience in Molecular Biology desired. **(Position #457)**

Cell Biologist/Biochemist

This B.S./M.S. position in our Diabetes Drug Discovery Group focuses on the mechanisms of insulin action and insulin resistance in diabetes and the development of agents which normalize glucose. This position involves examining the insulin signal transduction pathway and some aspects of insulin action in an isolated cell system. Selected candidates will be experienced in the mechanisms of receptor signaling and intracellular signal transduction, especially in response to insulin. Knowledge of the relevant cell culture systems and experience in techniques to assess protein phosphorylation/dephosphorylation mechanisms and glucose transport is desired. **(Position #525)**

Wyeth-Ayerst offers an excellent compensation and benefits package in a highly professional environment. Our research laboratory is just minutes away from Princeton University and is convenient to many other cultural, educational and leisure activities. Please forward resume with salary requirements to: **WYETH-AYERST RESEARCH, Employment Supervisor, (Reference Position #), CN 8000, Princeton, NJ 08543-8000.** An equal opportunity employer, M/F/D/V responses encouraged. Principals only.

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AYERST**

Leading The Way for a Healthier World

Molecular Immunologist

PARKE-DAVIS Pharmaceutical Research Division, Warner-Lambert Company, has an opening for a Molecular Immunologist at the Assistant Associate Scientist level in the Immunopathology- Experimental Therapy Department at our Pharmaceutical Research facility in Ann Arbor, Michigan.

The ideal candidate will have extensive experience in molecular biology, immunology and cell culture techniques. Expertise in: RNA DNA isolation, cDNA cloning; DNA sequencing (Sanger- dideoxy) analysis; in vitro mutagenesis; PCR analysis cloning; stable DNA mediated transfection in Chinese hamster ovary cells, tissue culture; flow cytometric analysis; hybridoma screening; antibody characterization and purification is required.

Other requirements include:

- BS MS in Molecular Biology Immunology or related biomedical science with 2-5 years experience post-graduation.
- Familiarity with computers and use of software designed for: nucleic acid, protein analysis, scientific reference management, graphics generation and word processing.
- Good written and oral communication skills.
- Self-motivation and the ability to work as part of a team effort.

Employment will be at our modern facilities next to the University of Michigan north campus in an outstanding living and working environment. Interested, qualified applicants should send letter of application with curriculum vitae and names of three references in confidence to **Box JDM-92194, Human Resources, PARKE-DAVIS, 2800 Plymouth Road, Ann Arbor, MI 48105. (FAX 313-996-7617) "Smoke-Free Work Environment"**

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PARKE-DAVIS

A DIVISION OF

WARNER LAMBERT

CELL CULTURE TECHNOLOGIST

HYBRIDOMA/MONOCLONAL ANTIBODY DEVELOPMENT

Southern Biotechnology Associates, Inc., a leader in the production of affinity purified antibodies, has a new position of Cell Culture Technologist to assist in the expansion of our hybridoma/monoclonal antibody capability. This individual will be responsible for maintenance, monitoring, and scale-up culture of hybridoma cell lines producing monoclonal antibodies, and construction of new hybridomas.

Requirements: B.S. or M.S. in a biological science; experience cell fusion technology, including screening and subcloning assays, storage and maintenance of cell lines; a working knowledge of quantitative ELISA, immunofluorescence assays, SDS-PAGE and IEF. Experience with bioreactors would be beneficial. The position is available immediately.

Our facility is located approximately 5 miles from the University of Alabama in a suburb of Birmingham. We provide a stimulating and challenging work environment based on creativity, commitment and teamwork. In confidence, send (or FAX) your resume and the names of three references to: Southern Biotechnology Associates, Inc., Personnel Director, P.O. Box 26221, Birmingham, AL 35226. FAX (205) 945-8768.

BIOPROCESS RESEARCH SCIENTIST

The Upjohn Company, a leader in pharmaceutical research and development, has an excellent opportunity for a research scientist in our Fermentation group within Bioprocess Research Preparations. As part of a multi-disciplinary team, the successful candidate will research, develop and support the fermentation preparation of research and clinical quantities of new human and animal drugs.

This position requires a Ph.D., broadly-trained in Microbiology or Biochemistry, with an emphasis in microbial physiology and biochemistry. Experience in and knowledge of industrial fermentation technology and industrial microbiology are highly desirable. Excellent interpersonal skills as well as written and verbal communication skills are a prerequisite.

Upjohn offers a very competitive compensation and benefits package in addition to a stimulating, multi-disciplinary research environment at our modern facilities located in Kalamazoo, Michigan. For confidential consideration, please forward a resume, transcripts, two letters of recommendation and two sample publications before July 1, 1992 to: THE UPJOHN COMPANY, Corporate Recruiting/ Position Code #120, 7000 Portage Road, Kalamazoo, MI 49001. Please refer to position number 120 in your cover letter. An Equal Opportunity Employer M/F.

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Upjohn

Research Assistants Animal Cell Expression Group

Be part of a high profile scientific team researching therapeutic pharmaceuticals for degenerative and neurological diseases. Regeneron Pharmaceuticals, Inc., well known for its research into neuronal growth factors, has an immediate opportunity within our Animal Cell Expression Group.

M.S. or B.S. in Biology, Microbiology, Molecular Biology or related discipline is required, as well as strong laboratory skills in tissue culture and recombinant DNA techniques. Experience in drug amplification of integrated genes or virus-based expression systems would be a plus.

Regeneron is situated on an expansive wooded campus near Tarrytown, in Westchester County, 25 miles north of New York City. To find out more about our supportive team environment and how your contributions can contribute to our growth and yours, please send detailed resume with salary history to: Human Resources Dept., Bin-ACEG, Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, N.Y. 10591-6707. EOE m/f

REGENERON Pharmaceuticals, Inc.

Research Scientist Position

DEVELOPMENTAL BIOLOGY DEPARTMENT

Amgen has a position available for a Research Scientist within the Developmental Biology Department. The successful candidate is expected to develop a rigorous research program aimed at generating transgenic mice useful in the study of cell growth and differentiation. The individual should have a PhD in the life sciences, at least two years of postdoctoral experience, and published work in the area of molecular genetics and the use of mouse embryonic stem cells.

Amgen offers a stimulating and challenging research environment where scientists are given the resources to achieve their best including opportunities for external collaborations and interactions with their peers in the academic community. Additionally, we offer an excellent compensation and benefits package. Candidates should send a curriculum vitae, with publication record and references, along with a letter describing research experience and interests, to: **Robert Bosselman, PhD, Developmental Biology Department, Amgen Inc., Amgen Center, Mailstop 5-1-A-219, Thousand Oaks, CA 92320.** Amgen is an equal opportunity employer.

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UNIVERSITY OF COLORADO SCHOOL OF MEDICINE

DEPARTMENT OF PHYSIOLOGY TWO TENURE TRACK POSITIONS

The Department of Physiology at the University of Colorado School of Medicine has available TWO TENURE TRACK POSITIONS, one at the Assistant Professor level, and one at Assistant Professor or higher. Although applications may be submitted at any time, selection of candidates will begin in September of 1992.

The Department Faculty have active research programs in developmental neurobiology, ion channel expression, synaptic transmission, sensory transduction, epithelial transport and secretion, and reproductive physiology. The School of Medicine is strongly research-based, with active interdepartmental programs in Cell and Developmental Biology, Immunology, Molecular Biology, and Neuroscience.

Applicants will be considered who have research interests in cellular, molecular or developmental physiology or functional organization of the central nervous system. Successful candidates will be expected to conduct vigorous independent research programs and to participate in professional and graduate teaching. Applicants should send *Curriculum vitae* and the names of at least three referees to:

Dr. S. R. Levinson
Chair, Faculty Search Committee
Department of Physiology, C240
University of Colorado Medical School
DENVER, CO 80262

The University of Colorado Health Sciences Center is committed to Equal Employment Opportunity and Affirmative Action. Minorities and Women are especially encouraged to apply.

PHARMACOLOGIST

The ICI Pharmaceuticals Group, dedicated to the challenge of discovering and developing important new therapeutic agents, is seeking a pharmacologist for the Urological research team based in suburban Wilmington, Delaware.

Pharmacologist: BS/MS in Biology or other life sciences with 2-5 years' post-graduate experience. The position requires *in vivo* experience including dosing and surgical skills, a broad knowledge of smooth muscle pharmacology and physiology, and adequate familiarity in computer applications. The candidate should be a good team worker with both competent oral and written communication skills.

We offer an excellent salary and flexible benefits program, including relocation, and the opportunity to build a career with one of the world's leading pharmaceutical research organizations.

For consideration, submit resume to: **Melanie M. Lewis, Human Resources, ICI Pharmaceuticals Group, Concord Pike and New Murphy Road, Wilmington, DE 19897.**



Pharmaceuticals

An Equal Opportunity Employer M/F

RESEARCH SCIENTIST

The Biological Testing Branch, Developmental Therapeutics Program, Division of Cancer Treatment, National Cancer Institute, National Institutes of Health, Public Health Service, is accepting applications for a senior level Biologist, Microbiologist or Veterinary Medical Officer position.

The incumbent will have the unique opportunity to assist in the development of preclinical *in vivo* testing efforts to correlate with the human tumor *in vitro* screen for potentially active cancer chemotherapy agents. This position will play an active role in the design and implementation of protocols to follow-up existing leads and explore newer methodology.

Applicants should have a doctoral degree or equivalent experience in appropriate scientific disciplines that would permit planning and execution of innovative and routine *in vivo* testing.

The position is located at the Frederick Cancer Research & Development Center in Frederick, Maryland. Salary commensurate with experience and expertise beginning at \$54,607 (GS-401/701-14). Send curriculum vitae and SF-171, Application for Federal Employment to:

Dr. Joseph G. Mayo
Biological Testing Branch
National Cancer Institute-FCRDC
Building 321, Room 7
Frederick, Maryland 21702-1201
Telephone: (301) 846-5065



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POSITIONS OPEN

ASSISTANT RESEARCH SCIENTIST

University of Michigan School of Medicine, Department of Internal Medicine, Division of Hematology/Oncology, is looking for an assistant research scientist, research investigator, or postdoctoral fellow, depending upon qualifications, to participate in ongoing studies on the cellular expression of plasma proteins. Professional background in cell culture and molecular biology required. Please send curriculum vitae and names of three references to: **Alvin H. Schmalzer, M.D., University of Michigan, Department of Internal Medicine, Division of Hematology/Oncology, 102 Observatory, Ann Arbor, MI 48109-0724. Equal Opportunity/Affirmative Action Employer.**

BIOLOGIST. Gather and analyze data and prepare environmental reports for governmental and private clients. Require master's in wildlife and fisheries and knowledge and proficiency with aquatics (marine/fresh), aquaculture (artificial propagation) and ecology of wildlife. Salary: \$27,000 per year; 40 hours per week, 8:30 a.m. to 4:30 p.m. Job site/interview: Portland, Oregon. Send résumé to: **Employment Division, Attention: Job Order Number 5550302, 875 Union Street NE, Room 201, Salem, OR 97311.**

CHEMIST, senior. Responsible for research relating to the development of new methods for biochemical analysis and synthesis of novel organic compounds. Design and synthesis of macroheterocyclic ligands, enzyme substrates and inhibitors, and attachment of ligands to proteins and haptens. Ph.D. in organic chemistry and graduate or postgraduate research experience in enzymatic reactions and chemical kinetics and the design and synthesis of macroheterocyclic ligands, enzyme substrates and inhibitors. Knowledge of molecular modeling and metal binding required. Salary: \$52,437 per year. Job site and interview: Palo Alto, California. Send this ad and your résumé to: **Syva Company, 3403 Yerba Buena Road, P.O. Box 49013, M/S E1-105, Department CRRS, San Jose, CA 95161-9013, no later than 15 June 1992. Equal Opportunity Employer M/F/H/V.**

The USDA Forest Service in Parsons, West Virginia, has an **ECOLOGIST** position open in its Water Resource Protection in Central Appalachian Forests Project. Salary: \$32,423 to \$42,152 (GS-11) per year. Assignment is to plan and conduct research addressing (1) monitoring impacts of forest management on biota and related water quality variables of mountain streams in West Virginia and (2) assessing impacts of in-stream fish structures on biota of streams in forests, particularly nongame fish species and aquatic invertebrates. For full recruitment bulletin and application instructions, contact: **Betty Higgins, telephone: 215-975-4235.**

UNIVERSITY OF MARYLAND

MICROCOSM/MESOCOSM SCIENTIST—Duties: assistance with design, implementation, maintenance, and operation of microcosms and mesocosms. **Required:** M.S. or equivalent experience in an environmentally oriented discipline; minimum of 4 years of experience working with multitrophic-level experimental systems. **Preferred:** Working familiarity with QA/QC protocols and water quality measurement. Submit a letter of interest, résumé, and the names, addresses and telephone numbers of three references to: **Dr. Thomas Malone, UMCEES, Horn Point Environmental Laboratory, Cambridge, MD 21613-0775. Deadline: 19 June 1992. An Equal Opportunity/Affirmative Action Employer.**

ST. JUDE CHILDREN'S RESEARCH HOSPITAL, a world leader in the treatment and research of pediatric catastrophic diseases, has openings for **RESEARCH TECHNOLOGISTS** in biochemistry, hematology/oncology, virology and molecular biology. M.S. degree or B.S. degree with 3 years of related research experience is required. Experience in molecular biological techniques, protein purification and characterization, and techniques associated with production and characterization of reagents is desirable. Interested candidates should mail a résumé to: **Jeri Buchanan, Employment Manager, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

PRINCIPAL BIOMEDICAL ENGINEER. R&D firm, northeastern Ohio. Responsibilities include development and fabrication of electronics for functional electrical stimulation (FES) systems; design of implantable devices involving a radio frequency (RF) receiver and electronics to provide electrical stimulation, along with external control units (ECUs) to control the electronics of the implant through the RF interface. Selection of components to minimize weight, power and volume for human body-implantable devices. Design of semi-custom-integrated circuits using complementary metal oxide semiconductors (CMOS) technology combining analog and digital functions for hybrid circuits smaller than conventional approaches. Design of novel receiver/connector. Ph.D. in biomedical engineering with biomedical major field of study plus 4 years of experience as research and/or project biomedical engineer. Hours: Monday to Friday, 7:30 a.m. to 4:30 p.m., overtime as needed; \$5000 per month salary range. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **J. Davies, JO #1200866, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

PATENTS AND PATENTABLE IDEAS SOUGHT. Conglomerate seeks to purchase, license or joint-venture with inventors or assignees of patents, patent applications or patentable ideas in the fields of immunology, endocrinology and hormone research, bioengineering, biochemistry, genetics, gerontology, nutrition, geriatrics, analytical chemistry, clinical chemistry, and toxicology as related to all aspects of the aging process. Contact: **Box 19, SCIENCE, 1333 H Street, NW, Suite 814, Washington, DC 20005.**

DEVELOPMENTAL/MOLECULAR TOXICOLOGIST

The Division of Developmental Toxicology at FDA's National Center for Toxicological Research (NCTR) has an opening for a **STAFF SCIENTIST.** Ongoing research in this division is concentrated on the adverse developmental effects of a variety of chemicals. NCTR is seeking a molecular biologist interested in applying this knowledge to developmental toxicology. Resources for research are provided by NCTR. The opening is a civil service research scientist position at the GS-12/13 (\$38,861 to \$60,070) level. The candidate will have to undergo a peer review of qualifications and accomplishments for determination of grade level. Send résumé and letter outlining research interests to: **Daniel M. Sheehan, Acting Director, Division of Developmental Toxicology, NCTR, Jefferson, AR 72079. DHHS/PHS/FDA/NCTR is an Equal Opportunity/Affirmative Action Employer. Qualified women and minority candidates are especially encouraged to apply.**

RESEARCH INVESTIGATOR IN PERINATAL RESEARCH LABORATORY

Full-time research investigator to perform basic research into mechanisms controlling vascular smooth muscle and the effect of pregnancy and gender upon them. Will utilize existing methods with responsibility for the completeness and adequacy of the research work, adapting to new theories as they are developed. Duties include: rapid and atraumatic isolation of small arteries and veins using microsurgical techniques which preserve the integrity of the vascular endothelium; rapid and atraumatic preparation of vascular rings for mounting in the experimental apparatus; develop devices of various types for empirical studies including hardware, software, or statistical methods; prepare research results for publication, reports, papers, journals, books and other media. Identify and define problems/solutions through the scientific research process. Evaluate data to establish relevance to the problem or problems being evaluated. Develop hypotheses to be tested and ways of doing so. Train and direct support personnel. The candidate must have a doctoral degree or equivalent education in either vascular physiology or pharmacology. Extensive experience with microsurgical dissection and working knowledge of endothelial mechanisms involved in vascular smooth muscle contraction and relocation are highly desirable. Salary: \$24,500 per year. Apply or send curriculum vitae and list of publications to: **Job Service of Iowa, P.O. Box 2390 (1810 Lower Muscatine Road), Iowa City, IA 52244. Refer to: Job Order IA 1100101. The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

POSITIONS OPEN

EMBRYOLOGIST

The IVF Program of University MacDonald Womens Hospital of Cleveland is seeking a full-time embryologist (B.S. and M.S.) to participate in research and clinical services in its fertility center. Prior experience with gamete micromanipulation and cryopreservation is desired. Direct experience in human IVF and related technology is beneficial. Collaborative research opportunities are available between the infertility program and several departments of Case Western Reserve University Medical School. Please send curriculum vitae to: **Dr. Leon Sheean, Ph.D., Director, IVF/Andrology Laboratories, University MacDonald Womens Hospital, 2074 Abington Road, Cleveland, OH 44106, or please FAX to: 216-844-7590.**

LEAD CYTOMETRY TECHNOLOGIST

Children's Hospital, Boston, is seeking a full-time **LEAD CYTOMETRY TECHNOLOGIST** in our Genetics Department. Responsibilities include preparing and operating machines for cell sorting experiments. Requires experience with flow cytometry and computers. Please send résumés to: **Doreen McGaff, Human Resources, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. Equal Opportunity Employer.**

STAFF SCIENTIST

For manufacturer in the Cincinnati area. Responsible for the development of new technologies for hair and skin care products, requiring an expertise in molecular biology, protein biochemistry, and cell culture. Conduct research on the regulation of human hair follicle and skin cells by using techniques such as gene cloning, gene mapping, gene expression (in both prokaryotic and eukaryotic systems), cell culture, cell transfection, enzyme assays, RNA detection and quantitation, and analysis of protein-nucleic acid interactions. Supervise technical personnel in the performance of the above research. Ph.D. in biochemistry or molecular biology required plus 1 year of experience in the job offered or 1 year of experience as pre- or postdoctoral researcher in cell and gene regulation. One year of experience must involve cDNA and genomic library construction, cDNA and gene cloning, mapping, in vitro translation and transcription, cell transfections, and identification of gene regulatory elements; RNA isolation and detection; protein purification and functional analysis and protein-nucleic acid interaction. Salary: \$49,800 per year, 40 hours per week, 8:30 a.m. to 4:30 p.m. *Must have proof of legal authority to work permanently in United States.* Send résumé in duplicate (no calls) to: **L. Ellison, JO# 1230838, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

SCIENTIST

Genencor International, Inc., a biotechnology company specializing in the production of industrial enzymes and specialty chemicals, is seeking an enzymologist with experience in the area of red/ox enzymes. We require a Ph.D. in enzymology or related field. Experience in oxide-reductases, oxygenases and/or peroxidases desirable. Postdoctoral experience preferred. To apply, please send your résumé to: **Genencor International, Inc., Department DE, 180 Kimball Way, South San Francisco, CA 94080. Equal Opportunity Employer.**

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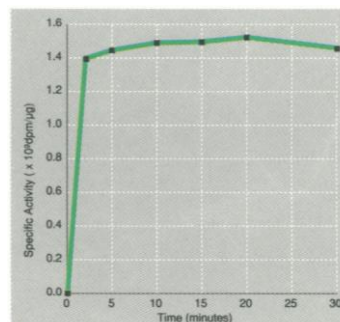


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