Unique construction makes our modular Formed Beam Kennels™ more versatile to configure and easier to install, keep clean and service.

Everything about Lab Products fixed and mobile kennels is easier. From ordering to shipment, from assembly to expansion. Fabricated throughout of quality, heavy duty stainless steel, our modular Formed Beam Kennels provide the benefits of an exclusive, patent pending construction innovation called Formed Beam construction. It’s the backbone of our system design.

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Lab Products Formed Beam Kennels are the most convenient and cost-efficient that you can buy. For more information, please use the reader service card, drop us a line, or call toll free: 1-800-526-0469.
HUMAN GENOME II
The International Conference On The Human Genome
2nd Annual Meeting – October 22-24, 1990
Town & Country Hotel
San Diego, CA

Co-Chairman: James D. Watson, Ph.D. Co-Chairman: Charles R. Cantor, Ph.D.

SCIENTIFIC PROGRAM

MONDAY OCTOBER 22, 1990
9:00am-12:00pm SESSION I – HGP OVERVIEW AND CENTRAL ISSUES
CHARLES CANTOR: Lawrence Berkeley Laboratory – The DOE Prospective.
JAMES WATSON: Cold Spring Harbor Laboratory – The NIH Prospective.
NANCY WEIXLER: Columbia University – Ethical, Social, and Legal Issues Concerning the Human Genome Project.
CHARLES DE LIS: Boston University – Structural Biology and the Human Genome Project.
MICHAEL WATERMAN: University of Southern California – Specialized Computer Hardware for Genomic Sequence Analysis.

1:00pm-4:00pm VIEWING OF EXHIBITS AND POSTERS

4:00pm-7:00pm SESSION II – MODEL SYSTEMS
FRANK RUDDLE: Yale University – Genomic Analysis of Mammalian Homebox Clusters.
DAVID BOTSTEIN: Stanford University School of Medicine – Why We Should Sequence the Yeast Genome.
ERIC LANDER: Whitehead Institute for Biomedical Research – Physical and Genetic Mapping of the Mouse by YAC Fingerprintings and CA Repeats.

5:00pm-7:00pm PIZZA AND DINNER RECEPTION

TUESDAY OCTOBER 23, 1990
9:00am-12:00pm SESSION III – NEW METHODS
ALEXANDER GLAER: University of California, Berkeley – Intercolation DNA, DNA Complexes and High Sensitivity Laser-Excited DNA Fluorescence Detection.
RODOJE DRMANAC/RADOMIR CRKVENJAKOVIĆ: IMGS, Belgrad, Yugoslavia – Sequencing by Hybridization; Applications and Prospects.
RICHARD MEYERS: University of California, San Francisco – Methods for Identifying Transcripts in Cloned Genomic DNA.
NIKOLAY LISITSYN: Institute of Molecular Genetics, Moscow, USSR – DNA Differences Between Humans and Chimpanzees.
ANDREI MIRZABEKOVIĆ: Shemyakin Institute, Moscow, USSR – DNA Sequencing by Hybridization.

1:00pm-4:00pm VIEWING OF EXHIBITS AND POSTERS

4:00pm-7:00pm SESSION IV – HUMAN DIVERSITY AND ITS IMPLICATIONS
CHARLES COUTELLE: Zentralinstitut fur Molekularbiologie Adv des DDR – Applications of Knowledge Obtained by Human Genome Analysis in National Health Service.
HENRY ERLICH: Cetus Corporation – The Analysis of Genetic Variation using PCR.
YOSHIYUKI SAKAKI: University of Tokyo, Japan – L1 (LINE-1) repetitive DNA as a novel polymorphic marker for genome analysis.

6:00pm-9:00pm INDUSTRY SPONSORED WORKSHOPS
WEDNESDAY OCTOBER 24, 1990
9:00am-12:00pm SESSION V – INTERESTING GENE REGIONS
FRANCIS COLLINS: University of Michigan – Identifying Human Disease Genes by Positional Cloning; CF and NF.
THOMAS CASKEY: Baylor College of Medicine – Human X Chromosome Structure/Disease Loci Dysfunction.
DAVID HOUSEMAN: Massachusetts Institute of Technology – Genetics of Wilms Tumor.
ARGIRIS ESPERATRIADIS: Columbia University – Chromosome Specific cDNA STSs.

1:00pm-4:00pm VIEWING OF POSTERS AND EXHIBITS

4:00pm-7:00pm SESSION VI – LARGE SCALE DNA SEQUENCING
CRAIG VENTER: National Institutes of Health – Automated DNA Sequence Analysis of the Human Chromosome Regions.
WALTER GILBERT: Harvard University – Multiplex Genomic Walking as an Approach to the Sequencing of Megabase-Sized Organisms.
BERNARD HOOD: California Institute of Technology – Mapping and Sequencing the T-cell Receptor Loci of Mouse and Man.
WILHELM ANSORGE: European Molecular Biology Laboratory, Heidelberg Germany – Sequencing and Mapping at EML.

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Fax: (212) 382-1921
Direct genomic solid phase sequencing of the human apolipoprotein E gene for diagnosis of a heterozygotic point mutation, Hultman and Uhlen (1990) submitted for publication.

When you're looking at automated DNA sequencing systems, you should be sure to take a good look at the raw data. That's because raw data is the basis for the processed data. Raw data should be easy to read and to interpret.

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POSITIONS OPEN

ASSISTANT PROFESSOR. A new tenure-track position will become available in August 1991 for a qualified individual who has demonstrated the ability to carry on an independent, vigorous, and productive research program in one of the following areas: control of gene expression, physical biochemistry, protein structure and function, and development and roles of specific receptors and signal transduction. Duties will include teaching undergraduate and introductory level biochemistry and molecular biology courses. The appointment is for 9 months at a salary commensurate with qualifications and experience. Minimum requirement is a Ph.D. degree. Interested candidates should send curriculum vitae, synopsis of research plans, and three letters of recommendation. Applications will begin to be reviewed on November 15. Send material to: Dr. Wesley D. Wicks, Department of Biochemistry, University of Tennessee (UTK), Knoxville, TN 37996-0840. UTK is an Affirmative Action/ Equal Opportunity/Title IX/Section 504 Employer.

FISH BIOLOGIST

A tenure-track position is available at the ASSISTANT PROFESSOR level August 1991 in the Department of Biological Sciences at the University of Idaho. The successful candidate must have a Ph.D. degree and must be able to develop an extramurally funded independent research program in one of the designated areas: cellular plant physiologist. Teaching responsibilities include teaching an upper division course in plant physiology and one other course. PLANT DEVELOPMENTAL BIOLOGIST. Teaching responsibilities include teaching an upper division course in plant development and one other course. Screening of applicants will begin on 15 December 1990. Applicants should submit (i) a curriculum vitae indicating research accomplishments, interests, and goals; (ii) transcripts of academic records; and (iii) three letters of reference. Address all correspondence to: Dr. J. G. Cloud, Chairman Search Committee Department of Biological Sciences University of Idaho Moscow, ID 83843

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER.

PLANT BIOLOGISTS

Two tenure-track positions are available at the ASSISTANT PROFESSOR level in the Department of Biological Sciences at the University of Idaho. Successful candidates must have a Ph.D. degree and must be able to develop an independent, extramurally funded research program in one of the designated areas: CELLULAR PLANT PHYSIOLOGIST. Teaching responsibilities include teaching an upper division course in basic plant physiology and one other course. PLANT DEVELOPMENTAL BIOLOGIST. Teaching responsibilities include teaching an upper division course in plant development and one other course. Screening of applicants will begin on 15 December 1990. Applicants should specify position sought and send curriculum vitae indicating research accomplishments, interests, and goals; a statement of teaching experience and philosophy; and three letters of reference. Address all correspondence to: Dr. George Spencer, Chairman Search Committee Department of Biological Sciences University of Idaho Moscow, ID 83843

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER.

POSITIONS OPEN

ASSISTANT PROFESSOR. Department of Surgery, The University of Chicago, is currently seeking a full-time, medically oriented scientist with proven research skills in the area of vision research. This person will be responsible for developing cryopreservation technology and research within the Department of Surgery. The University of Chicago is an Affirmative Action/Equal Opportunity Employer. Applications are invited for a tenure-track assistant professor position to complement existing strengths in Alzheimer's disease, neurodevelopmental disorders, stroke, and neuromuscular disease. A Ph.D. or M.D. with postdoctoral training is required. The successful candidate will be expected to develop an independent and externally funded research program and to participate in neuroscience teaching. Curriculum vitae, a statement of research interests, and the names of three references should be sent by 15 November 1990 to: Dr. William J. Jackson, Department of Physiology and Biophysics, Medical College of Georgia, Augusta, GA 30912-3000. An Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR NEUROSCIENCE

Applications are invited for a tenure-track assistant professor position to complement existing strengths in Alzheimer's disease, neurodevelopmental disorders, stroke, and neuromuscular disease. A Ph.D. or M.D. with postdoctoral training is required. The successful candidate will be expected to develop an independent and externally funded research program and to participate in neuroscience teaching. Curriculum vitae, a statement of research interests, and the names of three references should be sent by 15 November 1990 to: Dr. William J. Jackson, Department of Physiology and Biophysics, Medical College of Georgia, Augusta, GA 30912-3000. An Equal Opportunity/Affirmative Action Employer.
Two tenure-track positions are available for autumn 1991 in the area of physical biochemistry. We are looking for strength and originality in the determination of the mechanisms of mechanisms, and characterization of reaction energetics. Individuals expert in NMR, optical methods, thermodynamics, kinetics, or x-ray crystallography and particularly encouraged to apply. Applicants should hold a doctoral degree and have a strong record of original research. Preference will be given to applicants at the level of ASSOCIATE PROFESSOR, but candidates at more senior ranks will also be considered. Successful candidates will join an interactive and diverse faculty and participate in our comprehensive graduate program. Send curriculum vitae, a statement of research background and interests, and three letters of recommendation to: Jeffrey Sawyer, Chair, Department of Biochemistry, University of Utah School of Medicine, Salt Lake City, UT 84132. Deadline for applications is 1 December 1990; late applications will not be considered. Equal Opportunity/Affirmative Action Employer.

ASSOCIATE/ASSOCIATE PROFESSOR NEUROSCIENCE
The Department of Anatomical Sciences and Neurobiology, School of Medicine at the University of Louisville, is seeking to fill an assistant or associate professor position. The preferred candidate is expected to have an independent research program combining neuroanatomical and electrophysiological techniques. Research areas may include developmental neurobiology, plasticity, cellular structure/function and molecular processing, and other aspects of systems neuroscience. Applicants should have (i) at least 2 years of postdoctoral activity, (ii) an appropriate record of obtaining extramural funding, (iii) an active research program, and (iv) teaching experience in medical neurosciences and graduate level courses. Send curriculum vitae, statement of research and career goals, list of current or proposed funding, and the names of at least four references to:

Neuroscience Search Committee
Department of Anatomical Sciences and Neurobiology
School of Medicine
University of Louisville
Louisville, KY 40292

Applications should be received by 15 November 1990.
University of Louisville is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR IN MICROBIOLOGY
THE UNIVERSITY OF TENNESSEE
KNOXVILLE, TENNESSEE
Qualifications: Doctoral degree and at least 2 years of postdoctoral experience in molecular virology or closely allied biological sciences. Demonstrated ability and productivity in virology, and potential excellence in teaching. Responsibilities: Graduate and undergraduate teaching in virology and virological methods. Directing a productive independent research program, and academic responsibilities normally associated with a tenure-track faculty position. Starting date: 1 August 1991. Applicants should submit a letter of interest accompanied by curriculum vitae, a description of the candidate's research background, and the names, addresses, and telephone numbers of three individuals who can evaluate the candidate's qualifications for the position. Application materials should be sent to: Jeffrey Sawyer, Chair, Department of Microbiology, University of Tennessee, Knoxville, TN 37996-0845. Applications are encouraged to be received as soon as possible; evaluation of applications will begin in December 1990. The University of Tennessee is an Affirmative Action/Affirmative Action/Title IX/Section 504 Employer.
Fisheries and Oceans Canada
St. John’s, Newfoundland

Research Scientist, Redfish

Your Challenge
You will research the dynamics of redfish and other groundfish species in offshore areas of the North Atlantic. You will also orchestrate acoustics surveys to estimate their distribution and abundance, and develop methodologies for analyzing the results.

Your Credentials
In addition to a doctoral degree and research experience in fisheries biology, you should have extensive experience in population dynamics and field program management utilizing fisheries acoustics technology, plus a strong record of publication in the primary literature.

Research Scientist, Gadoids

Your Challenge
You will research the dynamics of cod in offshore areas of the North Atlantic, including stock structure, migration patterns, distribution and population. You will also develop methodologies for solving problems in marine ecology.

Your Credentials
In addition to a doctoral degree in fisheries biology and extensive experience in the above areas, including program management, you should have a solid theoretical background and a strong record of publication in the primary literature.

Section Head and Research Scientist, Fisheries Ecology, Groundfish

Your Challenge
You will research the dynamics of marine ecosystems with emphasis on demersal fisheries. This will involve field surveys, laboratory experiments, mathematical modelling investigations, and the development of problem-solving methodologies.

Your Credentials
Your doctoral degree in fisheries biology, marine ecology or a related field should be complemented by extensive research experience in marine fisheries, biological oceanography and population dynamics. A background in collaborative, interdisciplinary research is also required, as is a substantial record of publication in the primary literature.

Gear Technology Researcher

Your Challenge
You will oversee a vigorous research program within the Technology Development section. Your work will involve the performance of fishing trawls and the measurement of parameters relating to gear efficiency.

Your Credentials
A doctoral degree in Engineering or equivalent experience is required. You should also have experience with electronic monitoring equipment, micro-computers, experimental design, and the supervision of contract research. Familiarity with flume tanks would be an asset.

While all positions specify a doctoral degree, a lesser degree with evidence of equivalent research experience and productivity will be considered. Knowledge of English is essential for all positions. Salaries range from $34,343 to $83,351, commensurate with qualifications and experience.

Please forward your résumé and/or application form by October 31, 1990, quoting reference number S-90-31-5832-47JG-G35, to: Joan Girling, Public Service Commission of Canada, 171 Slater Street, Ottawa, Ontario Canada K1A 0M7.

The Public Service is committed to employment equity.

Personal information is protected under the Privacy Act. It will be held in Personal Information Bank PSC/P-PU-040.

Vous pouvez obtenir ces renseignements en français.
THE UNIVERSITY OF ADELAIDE — SOUTH AUSTRALIA
invites applications from both women and men for the following position:

PROFESSOR OF ENVIRONMENTAL STUDIES
(Ref: 7442) in the MAWSON GRADUATE CENTRE FOR ENVIRONMENTAL STUDIES. This position has been created from the Vice-Chancellor’s Development Fund following an external review of the Graduate Centre for Environmental Studies (to be known as the Maawson Graduate Centre for Environmental Studies) from 1 January 1991 in the University of Adelaide. As well as being the Director of the Maawson Graduate Centre, the incumbent will have academic oversight of the Maawson Collection housed in the University of Adelaide. The Centre offers a Post-Graduate Diploma and a Master of Environmental Studies degree, based on a combination of course work and research. The Professor will be expected to initiate a review of the structure and curriculum of the Centre’s degree, and to undertake the development of the programme to Ph.D. level. The University is also developing environmental studies and science at the undergraduate level through various faculties, including Arts, Science and Agricultural and Natural Resource Sciences, and the Professor will be expected to contribute academic leadership to these new courses.

The Maawson Centre has a current enrolment of 75 post-graduate students from a wide range of academic backgrounds. Its courses are integrated by a perception of environmental studies as transdisciplinary and problem-solving, with a distinctive methodology and a developing philosophical base. It conducts research on general environmental problems, and also on subjects of particular interest to clients such as the South Australian Department of Environment and Planning, National Parks and Wildlife, the SA Waste Management Commissioner, local governments, the Murray Darling Basin Ministerial Council, and major industrial corporations. An emphasis is placed on teamwork in research and on interaction between students with complementary expertise.

To direct the Centre the University of Adelaide seeks a Professor who has achieved distinction in teaching and research in the field of environmental studies. The successful candidate will be expected to enjoy the confidence of the scientific community; accordingly, a background in the natural sciences may be an advantage. The candidate will also be expected to enjoy the confidence of the professional community with which the Centre is increasingly linked. The Professor’s responsibilities as director will include convening the Centre’s Board, which is broadly representative of environmentalists across the University as well outside it, and includes members from the faculties of Agricultural and Natural Resource Sciences, Architecture and Planning, Arts, Economics, Law, Medicine and Science.

The position is available from 1 February 1991, for five years in the first instance. Further information concerning the duties of the position may be obtained from Dr John Young, Director of the Maawson Graduate Centre for Environmental Studies, telephone (61) 8 228 5385.

APPLICATIONS, IN DUPLICATE, quoting reference number 7442 and giving full personal particulars (including whether candidates hold Australian permanent residency status), details of academic qualifications and names and addresses of three referees should reach the Director, Personnel Services, at the University of Adelaide, GPO Box 498, Adelaide, South Australia 5001; Taxis 6065 9410, Facsimile (61) 8 229 0444 no later than 19 October 1991.

The University reserves the right to make enquiries of any person regarding any candidate’s suitability for appointment, not to make an appointment or to appoint by invitation. From 1 January, 1991, Roseworthy Agricultural College will merge with The University of Adelaide.

THE UNIVERSITY OF ADELAIDE IS AN EQUAL OPPORTUNITY EMPLOYER.

THE UNIVERSITY OF WAIKATO
Hamilton, New Zealand

PROFESSOR OF EARTH SCIENCES

The University of Waikato invites applications for a chair in the Department of Earth Sciences. The department has fourteen academic staff teaching a broad programme at undergraduate level with a concentration at graduate and research level in three major fields: (1) marine geosciences — including coastal processes, sediments and management, and shelf and deep sea deposits; (2) Earth resources and technology — including water, soil, rock and mineral resources and their physical and chemical properties; (3) late Cenozoic development of the SW Pacific region — including aspects of stratigraphy, volcanology, petrology, paleoenvironments, geochronology, stable isotope geology, tectonics and geomorphic development. Staff and research students are major contributors to the Antarctic Research Unit, Geochronology Research Unit and Water Research Unit of the School of Science and Technology.

The successful candidate will have a distinguished record of published research, and will be expected to take a major role in the supervision of graduates and leadership of research groups. The professor will be expected to take a full part in the work of the department, including its teaching programme, and to serve as chairperson in rotation with other senior staff members.

The salary range for Professors is NZ$37,000 – NZ$56,000 per annum, but is currently being reviewed.

Applications should include a curriculum vitae, a statement of personal research interests with comment on their relationship to the department’s research fields and the names and addresses of three referees. Enquiries of an academic nature may be made to Professor M J Sealy, Department of Earth Sciences (Tel. (64) 71 562889, Fax (64) 71 560115).

Information on the conditions of appointment and method of application can be obtained from the Academic Staff Registrar, University of Waikato, Private Bag 3105, Hamilton, New Zealand (Tel. (64) 71 562889, Fax (64) 71 560135). Applications quoting reference number A90/73 close on 19 October 1990.

Places for appointees’ children may be available in the creche run by the Campus Creche Society (Inc). The University welcomes applications from suitable people regardless of race, creed, marital status or disability.
FACULTY POSITION
DEPARTMENT OF ENVIRONMENTAL HEALTH
COLORADO STATE UNIVERSITY

Position: Veterinary/Medical Entomologist

The Department of Environmental Health invites applications for a tenure-track position in the area of veterinary/medical entomology at the Assistant/Associate Professor level. Preference will be given to candidates with demonstrated expertise and interest in the application of modern quantitative epidemiologic and/or molecular approaches to vector-borne diseases. The successful candidate will be expected to develop a vigorous research program, supervise graduate students, and participate in the teaching program. The candidate will be a member of the Arthropod-borne Infectious Diseases Laboratory at Colorado State University and will have multiple opportunities for interaction with scientists at the Centers for Disease Control Division of Vector-borne Viral Diseases and at the U.S.D.A.-Arthropod-borne Animal Diseases Research Laboratory. Candidates must possess a doctoral degree (Ph.D., D.V.M., or equivalent) and postdoctoral experience. Candidates should send their curriculum vitae, statement of research interests, and the names, addresses and phone numbers of at least three references to: Dr. John S. Reif, Search Committee Chairman, Department of Environmental Health, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, Colorado 80523. Phone: (303) 491-6074/7038. Deadline for completed applications is November 30, 1990. CSU is EEO/AA employer. E.O. Office, 314 Student Services Building.

SENIOR BIOCHEMIST
Merck Sharp & Dohme Research Laboratories is offering a Ph.D. position in the department of Safety Assessment at the research facilities in West Point, PA. The successful candidate will be responsible for developing appropriate methodology to assess drug/metabolite tissue levels and investigating mechanisms of toxicity.

The position requires a Ph.D. degree in Biochemical Toxicology, Biochemistry, Analytical Chemistry or the equivalent. Experience with biochemical techniques (e.g. HPLC, GLC, RIA, etc.) computerization and in vivo and in vitro methods related to toxicity is also required. Excellent salary and benefit packages accompany this position at our West Point Laboratories 25 miles northwest of Philadelphia.

Please send curriculum vitae with cover letter to: Personnel Manager, Ad #C-30, Research Personnel, WP42-2, Merck Sharp & Dohme Research Laboratories, West Point, PA 19486.

Manager
Pharmacology/Toxicology

Triton Biosciences Inc. is a fully integrated pharmaceutical and diagnostic company focused on product development opportunities in the areas of cancer and other life-threatening diseases.

As the Manager of Pharmacology/Toxicology, you will provide managerial and technical leadership and direct pharmacologic and toxicologic evaluations of pharmaceutical compounds; develop and execute nonclinical pharmacology/toxicology plans for the completion of INDs, NDAs and PLAs; and develop and execute clinical pharmacokinetic plans for NDAs and PLAs. In addition, you’ll supervise staff responsible for study design, monitoring contract labs, and preparing final reports and summaries; prepare/monitor departmental budgets; participate in project teams; and interact with the FDA.

Your qualifications should include a PhD and 5–10 years of industry experience. Previous supervisory experience and interaction with the FDA are desirable.

Triton is located in the San Francisco Bay Area and offers competitive salaries and benefits including relocation assistance. For immediate consideration, send CV with salary history and references to: Triton Biosciences Inc. Job #90-067, 1501 Harbor Bay Parkway, Alameda, CA 94501. An equal opportunity employer.

Triton Biosciences Inc.

Agricultural Biotechnology Research

SCIENTISTS

CIBA-GEIGY Agricultural Division’s Biotechnology Research Unit in Research Triangle Park, NC is a leader in creating new plants that cannot be developed solely through the use of traditional breeding methods. Research is aimed at developing novel types of seeds for plants that will be more tolerant to environmental stress, insects, disease and agricultural chemicals.

We welcome inquiries from qualified individuals. Project opportunities are available in four research disciplines: Plant Molecular Biology, Molecular Genetics, Biochemistry and Plant Tissue Culture. Our Scientists are currently involved in the transfer of genes to code for insect resistance, chemical synthesis of genes for insertion into plant cells, and regeneration of healthy, fertile plants containing new genetic information, among other activities.

CIBA-GEIGY offers competitive salaries, generous company-paid benefits and opportunities to contribute to innovative research programs. Please forward your resume, which MUST include salary requirements, along with 3 letters of professional reference and transcripts to: M. Tasch, CIBA-GEIGY Corporation, Agricultural Division, PO Box 12257, Research Triangle Park, NC 27709. We Are An Equal Opportunity Employer M/F/H/V.

Science Serving Mankind

CIBA-GEIGY
**MOLECULAR BIOLOGIST**

Indiana University-Purdue University at Indianapolis invites applications for a tenure-track position in MOLECULAR BIOLOGY. The successful candidate will have expertise in recombinant DNA technology and immunological approaches to solve problems in molecular biology. Applicants for the position should have a Ph.D. and postdoctoral training. A history of grant support is highly desirable. The successful candidate must develop an active, externally funded research program and contribute to the continued development of graduate programs; participate in undergraduate and graduate teaching. The Department of Chemistry will occupy a modern research facility in spring 1990.

Applicants should submit their curriculum vitae, a statement of their research interests and goals, and reprints of recent publications, and four letters of recommendation to: Dr. Charles Schauf, Professor and Chairman, Department of Chemistry, Purdue University School of Science, 1125 East 38th Street, Indianapolis, IN 46205. Applications must be received by 31 October 1990. Indiana University is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are particularly encouraged to apply.

The Department of Biological Sciences at Texas Tech University seeks to fill five tenure-track positions at the ASSISTANT PROFESSOR level. Texas Tech is one of only two state universities in the state with on-campus medical and agricultural schools. Current student enrollment exceeds 25,000. Successful applicants must be prepared to develop, maintain, and fund research programs in areas consistent with the major research strengths of the department. The successful candidate will have a Ph.D. degree and postdoctoral training. Salary is competitive with the rank held. Salary, rank and research support will be determined by the college assistant director for science. The position is subject to final budgetary approval. The application must include: a letter of application, curriculum vitae, a statement of research and teaching goals, and three or four letters of recommendation. Applications must be received by 31 October 1990 to: Search Committee, Department of Biological Sciences, Texas Tech University, Lubbock, TX 79409.

**ASSISTANT OR ASSOCIATE PROFESSOR**

**FUNGAL MOLECULAR BIOLOGIST**

The University of Arizona invites applicants for a tenure-track assistant or associate professor position with research emphasis in molecular biology. The successful candidate will be expected to develop a creative research program based on elucidating the molecular traits reponsible for fungal virulence. The candidate will be required to interact with faculty and students in the department, to develop a productive research program and contribute to the continued development of graduate programs; participate in undergraduate and graduate teaching. The Department of Biological Sciences at the University of Arizona will occupy a modern research facility in spring 1990.

Applicants should submit their curriculum vitae, a statement of their research interests and goals, and reprints of recent publications, and four letters of recommendation to: Dr. William F. Gish, Chairman, Department of Biological Sciences, University of Arizona, Tucson, AZ 85721. Telephone: 602-621-9385. An equal opportunity/affirmative action employer. Women and minorities are encouraged to apply.

**IMMUNOLOGIST**

The Department of Microbiology and Immunology, Indiana University School of Medicine, invites applications for a tenure-track faculty position at the rank of ASSISTANT OR ASSOCIATE PROFESSOR. Appications are solicited for research in the area of immunology. Laboratory space, equipment, and financial support are available.

Applicants should submit curriculum vitae, a statement of research interests and goals, and reprints of recent publications, and four letters of recommendation to: Dr. James M. W. Clark, Chairman, Department of Microbiology and Immunology, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202-5120. Review of applications will begin 1 December 1990 and continue until the position is filled. An equal opportunity/affirmative action employer.

**ASSISTANT/ASSOCIATE PROFESSOR**

**TENURE-TRACK**

**TUMOR BIOLOGY**

The Department of Pathology and Laboratory Medicine at the University of Arizona, College of Medicine, Tucson, AZ, is seeking a qualified candidate for a tenure-track position in tumor biology. The Department of Pathology and Laboratory Medicine is a major component of the University of Arizona Medical Center and is an integral part of the University of Arizona Health Sciences Center. The successful candidate will have a Ph.D., M.D., or equivalent degree and postdoctoral training and interest in teaching and research. Salary is competitive.

Applicants should submit curriculum vitae, a statement of research interests and goals, and reprints of recent publications, and four letters of recommendation to: Dr. G. D. Van Etten, Department of Plant Pathology, University of Arizona, Tucson, AZ 85721. Telephone: 602-621-9385. An equal opportunity/affirmative action employer. Women and minorities are encouraged to apply.
Applications are invited for appointment to the Chair of Genetics (1967) which has become vacant on the retirement of Professor George Dawson.

Further particulars of the appointment, including details of salary and other benefits, may be obtained from and discussed with:

The College Secretary
West Theatre,
Trinity College,
Dublin 2
TEL.: 778421
FAX: 722853

to whom formal applications should be sent, preferably before 5th October 1990.

Trinity College is an Equal Opportunities Employer

Manager of Environmental Affairs

Help enhance our reputation for clean, safe and environmentally-sound operations.

We're Noramco Inc., the domestic bulk pharmaceutical/fine chemicals manufacturing subsidiary of Johnson & Johnson, the most broadly based health care products company in the world. We seek a candidate with a BS in Chemistry or Chemical Engineering and at least 3 years experience with EPA regulations and a knowledge of state-of-the-art technology for water and air control.

The successful candidate will assume broad responsibilities in developing and carrying our programs to assure that our domestic facilities are in compliance with Federal, state, local and Corporate environmental regulations. You must have excellent written/oral communication skills and be able to interface effectively with customers for our fine chemicals and materials (particularly those requiring CGMP operations) as well as regulatory agencies, Corporate, industrial and public interest groups.

Significant travel will be required from our Headquarters in New Brunswick, NJ.

If you are ready to bring your business acumen to a name you know and trust, you'll enjoy a competitive salary plus the comprehensive benefits of a Johnson & Johnson company including our LIVE FOR LIFE Wellness Program with on-site fitness center and our recently opened on-site Child Development Center.

For immediate consideration, please send your resume and earnings record to: Employment Dept. JT, Johnson & Johnson World Headquarters, One Johnson & Johnson Plaza, New Brunswick, NJ 08933.

An Equal Opportunity Employer.

NORAMCO INC
a Johnson & Johnson company
Biochemical Research

Senior Scientist

CIBA-GEIGY Pharmaceuticals Division invests more than a million dollars a day to support innovative research and development of new products that help enhance the quality of life.

We are seeking a PhD level Scientist who will be involved in studying receptor pharmacology, as it relates to drug discovery efforts in the areas of inflammation and cardiovascular diseases, in the Biochemical Profiling group in the Research Department. Credentials should include a PhD in Pharmacology or Biochemistry and 2-3 years post-doctoral experience. The qualified candidate will be familiar with techniques in receptor biochemistry, receptor isolation and/or autoradiography. Preference will be given to those individuals possessing skills in molecular biology, specifically, expression of receptors in eukaryotic systems. The position is based at our 100-acre headquarters complex in Summit, New Jersey and will supervise 3 non-PhD scientists.

We offer competitive salaries, excellent benefits, and opportunities for advancement. Please send resume with salary history and requirements to: Al Aronson, Staffing Center, CIBA-GEIGY Corporation, Pharmaceuticals Division, Dept. 367, 556 Morris Avenue, Summit, New Jersey 07901. We Are An Equal Opportunity Employer M/F/H/V.

Science Serving Mankind

CIBA-GEIGY

Staff Scientist

Protein Chemistry

IMMUNEX RESEARCH AND DEVELOPMENT CORPORATION, a Seattle-based biopharmaceutical company committed to research and development of immunological therapeutic products, is searching for qualified candidates for the position of Staff Scientist— Protein Chemistry.

The successful candidate's primary responsibility will be to direct the purification, characterization and biophysical analysis of recombinant proteins for our rational drug design projects. Techniques available for analysis include conventional and HPLC chromatography, amino acid analysis and sequencing, PAGE, peptide synthesis, and UV, fluorescence, CD and mass spectroscopy. Opportunities will exist to interface with other scientists on collaborative projects involving mutagenesis, organic synthesis, molecular modeling, NMR and X-ray crystallography. In addition to excellent communication skills, applicants should have a doctoral degree in biochemistry or a related field and at least two years of post-doctoral experience. Preference will be given to candidates with extensive experience in protein purification, characterization and analysis utilizing progressive technology.

Immunex Research and Development Corporation offers excellent opportunities for career development as well as competitive salaries and an excellent benefits package. For consideration, please submit CV, names of three references, and list of publications to: Immunex Research and Development Corporation, Human Resources Director, 51 University Street, Seattle, WA 98101. Equal Opportunity Employer.

Toxicologist

FMC CORPORATION, a Fortune 150 international machinery and chemical corporation has an opening for a Toxicologist at our new Chemical Research and Development Center located in Princeton, NJ. Responsibilities will include interpreting, analyzing and reviewing toxicology data; planning, directing and monitoring contacted toxicology studies; assisting in the compilation and dissemination of technical information.

Position requires a PhD degree in Toxicology or related science, MS with some industrial experience, and/or up to 5 years post-doctoral or industrial training. FMC offers excellent salary and benefits package. Please send resume with salary requirements to: FMC CORPORATION, Dept. 90-52, P.O. Box 8, Princeton, NJ 08543. ATTN: Ron Wehner, Principals only. Equal Opportunity Employer, M/F.
Molecular Radiobiology Postdoctoral Candidates

We are seeking exceptional candidates to conduct innovative research in the molecular radiobiology section of the Genetics Group, Life Sciences Division. Our program is particularly concerned with the relationship of DNA lesions and their repair to the induction of mutations, genetic recombination and other molecular/genetic events important in radiation and chemical carcinogenesis. Our principal investigators and their research interests are:

- Dr. David J-C Chem: the cloning of ionizing radiation repair genes by complementation of rodent and/or yeast radiation/sensitive mutant cells and the defining of molecular mechanisms of radiation-induced mutation in human cells.
- Dr. Mark A. Macinnes: the characterization of the cloned human excision repair gene ERCC-5, its regulation, cDNA isolation, protein structure and function.
- Dr. Richard T. Okinaka: the application of new molecular techniques, including PCR and denaturing gradient gel electrophoresis, in examining ionizing radiation-induced mutational spectra in human cells.
- Dr. Richard J. Reynolds: the elucidation of the relationship between radiation-induced DNA lesions and the stimulation of mutagenesis and genetic recombination and mechanisms of translesion synthesis in eucaryotic cells.
- Dr. Gary F. Strniste: the development of molecular systems (e.g., shuttle vectors) for determining mechanisms of radiation-induced DNA damage and its repair in mammalian cells. The determination of molecular/cellular effects of low-level ionizing radiation exposure.

Candidates should have excellent academic credentials and demonstrated research potential, including refereed publications from their thesis work. Selected Los Alamos Postdoctoral Fellows receive $34,920-$37,740 per year, comprehensive benefits and relocation expenses. Consideration will be given to postdoctoral (within 1 year from anticipated graduation) and postdoctoral (within 2 years after graduation) applicants.

To formally apply for this position, you must reference Ad Number PD-90-070 on your resume. Interested candidates should forward a current resume, statement of research interest with reference to one or more of the above listed investigators and copies of their undergraduate and graduate transcripts to Ronnie Cohen (MS P280), Human Resources Division, Los Alamos National Laboratory, Los Alamos, NM 87545.

Affirmative Action/Equal Opportunity Employer.
UNIVERSITY OF TEXAS AT EL PASO
CHAIRPERSON
DEPARTMENT OF BIOLOGICAL SCIENCES

The University of Texas at El Paso invites applications for chairperson of the Department of Biological Sciences. Selection criteria include achievement in research and teaching, potential to attract and retain quality graduate students, and scholarly and administrative leadership skills. The chairperson is responsible for the university's mission, the academic advising function for the department and the curricular and co-curricular capacity of the department.

DIRECTOR, CANCER PROGRAM UNIVERSITY OF MASSACHUSETTS MEDICAL CENTER

The University of Massachusetts Medical Center is recruiting a leader in cancer research to direct a major cancer program. The director will be the principal investigator for the new cancer center and an outstanding cancer center at the medical school. The director will have the opportunity to develop a major research center. For more information, please visit the website at http://www.umassmed.edu/cancer.

DIRECTOR FOR ENVIRONMENTAL STUDIES WILLIAMS COLLEGE

Williams College invites applications for the position of director for environmental studies. The position is available immediately. The director will have the opportunity to develop a major interdisciplinary program. For more information, please visit the website at http://www.williams.edu/departments/environment.

AQUATIC BIOLOGIST/ENVIRONMENTAL SCIENTIST, GM-14

The United States Environmental Protection Agency (EPA), Narragansett, Rhode Island, is seeking highly qualified candidates for the position of TECHNICAL DIRECTOR, Ecosystems Microbiology Program. The position requires a Ph.D. in microbial ecology, environmental microbiology, or related field. The successful candidate will have extensive experience in research and teaching, and will have a strong record of publication and grants. For more information, please visit the website at http://www.epa.gov.

POSITIONS OPEN

FACULTY POSITIONS IN EUKARYOTIC MOLECULAR GENETICS. Applications and nominations are invited for positions at the ASSOCIATE PROFESSOR or higher levels. The department is seeking outstanding candidates in the broad areas of eukaryotic molecular genetics. Individuals with a strong background in molecular biology, genetics, and biochemistry are encouraged to apply. For more information, please visit the website at http://www.ucsd.edu.

FACULTY POSITIONS IN IN PHARMACOLOGY

The University of Illinois College of Medicine at Rockford seeks applications and nominations for positions in the Department of Pharmacology. The successful candidate will have a strong background in drug discovery and development. For more information, please visit the website at http://www.uic.edu.

FACULTY POSITIONS IN VIROLOGY AND IMMUNOLOGY

Applications are invited for tenure-track and tenured faculty positions in virology and immunology. The successful candidate will have a strong background in one or more of the following areas: virology, immunology, virology, or immunology. For more information, please visit the website at http://www.uic.edu.

FACULTY POSITION IN TOXICOLOGY UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA)

The Department of Environmental Health Sciences at the UCLA School of Public Health invites applications for a tenured-track faculty position in toxicology. For more information, please visit the website at http://www.ucla.edu.

SEARCH REVIEW COMMITTEE FACULTY POSITION IN ECONOMICS UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA)

The University of California is an Affirmative Action/Equal Opportunity Employer. For more information, please visit the website at http://www.ucla.edu.

1332

SCIENCE, VOL. 249
Recognized for excellence in the research of agricultural products, Sandoz Crop Protection offers a challenging and stimulating working environment.

Scientist II, Biologicals, #90-309- Independent handling of assigned projects designed to improve strains of B. thuringiensis used in production of natural pesticides. Requires BS/MS in molecular biology or microbiology with extensive experience and background in plasmid/protein analysis & bacterial physiology.

Scientist II, Plant Biotechnology, #90-320- Transformation and biochemical analysis of maize. Requires plant transformation experience, prefer biolistic process; MS degree in plant science or genetics or BS with extensive applicable exper.

Scientist II, Plant Biotechnology, #1W4- Manage and work in small facility for DNA sequencing and synthesis. BS/MS with significant DNA sequencing experience required; extensive knowledge of current DNA analysis software and oligonucleotide synthesis desired.


For consideration, please send resume to:
Sandoz Crop Protection
Human Resources Department
975 California Avenue
Palo Alto, CA 94304-1104
AA/EOE
ACADEMIC HEMATOLOGY/ONCOLOGY

The University of Vermont (UVM). Full-time FACULTY POSITIONS available in the Department of Medicine. Candidates must be Board-certified in internal medicine and Board-eligible or certified in hematology or hematologist/oncologist. Candidates should have demonstrated research performance in hemostasis and thrombosis, or in hematopoietic growth factors or receptors, or in autologous bone marrow transplantation. The application must provide evidence of a productive research program and the potential for independent support. The position includes teaching and clinical responsibilities. Academic rank and salary will be consistent with the applicant's qualifications. Please direct inquiries with curriculum vitae and names of addresses of three references to: Richard Bylund, M.D., Hematology/Oncology Unit, 32 North Street, Burlington, VT 05401. UVM is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply. Applications will be accepted until the position is filled.

FACULTY POSITIONS IN BIOLOGY AND CHEMISTRY

The University of West Florida plans to fill tenure-track positions for Environmental Diagnostics and Biomediation. The positions are in four areas: (i) IMMUNOLOGY: immunodiagnostic and immunopathology, virology, and immunoassays, molecular approaches to immune function and regulation; and (ii) MICROBIAL GENETICS: genetic approaches to biotechnology, regulation, and organization of genes encoding metabolic pathways, construction and detection of organisms with new metabolic phenotypes; (iii) MICROBIAL BIOCHEMISTRY: biodegradation and transformation of xenobiotics, metabolic pathways and enzyme recruitment, and development of microbial systems to degrade chemical wastes. Send CV, ENVIRONMENTAL BIOLOGY and CHEMISTRY; Assistant, Associate, or Professor, three letters of evaluation, and a statement of research goals should be sent to: Dr. K. Ranga Rao, Department of Biology, University of West Florida, Pensacola, Florida 32514. Telephone: 904-474-7275. An Equal Opportunity/Affirmative Action Employer.

WATER QUALITY/LIMNOLOGY

The Department of Biology at the University of Missouri-Columbia invites applications for a TENURE-TRACK POSITION in water quality/limnology as part of its expanding Freshwater Biology Program. Duties: conduct basic and applied research in biological, chemical, and physical aspects of water quality emphasizing a physico-chemical perspective; develop an extramurally funded, collaborative research program, in part using the University’s Missouri Water Resources Field Station and other nearby field opportunities; participate in undergraduate and graduate teaching including limnology, aquatic biology, and an expanded graduate mas- ter's and doctoral students; and participate in local and national professional service. Qualifications: earned doctorate in an appropriate field; a record of professional accomplishment and publication; and the ability to obtain extramural funding and of a collaborative re- search orientation. Academic rank is open, salary depends on qualifications. Position available in August 1991. Women and minorities are encouraged to apply. Please submit a letter of application, complete curriculum vitae, a statement of research interests and future research plans, and the names, addresses, and telephone numbers of at least three references to: Dr. Max F. J. Bylund, Department of Biology, The University of Missouri, Columbia, Missouri 65211. Applications will be reviewed until the position is filled.

FACULTY POSITIONS

The University of California, Irvine. FACULTY POSITIONS IN ORGANIC CHEMISTRY. Three positions are available this year: one in the environmental area, and two in the synthetic area. Applicants should submit a statement of current research interests and future research plans, and the names, addresses, and telephone numbers of at least three references to: Dr. David L. Smith, Department of Chemistry, University of California, Irvine, CA 92717. To ensure full consideration, applications should be received by 15 October 1990. The University of California is an Equal Opportunity/Affirmative Action Employer. The Department of Chemistry is particularly interested in receiving applications from minority and female candidates. Position in Biochemistry and Molecular Biology.

FACULTY POSITIONS AVAILABLE

The Department of Biochemistry, The University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198–6260. The University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer.

ACADEMIC HEMATOLOGY/ONCOLOGY

The University of Vermont (UVM). Full-time FACULTY POSITIONS available in the Department of Medicine. Candidates must be Board-certified in internal medicine and Board-eligible or certified in hematology or hematologist/oncologist. Candidates should have demonstrated research performance in hemostasis and thrombosis, or in hematopoietic growth factors or receptors, or in autologous bone marrow transplantation. The application must provide evidence of a productive research program and the potential for independent support. The position includes teaching and clinical responsibilities. Academic rank and salary will be consistent with the applicant's qualifications. Please direct inquiries with curriculum vitae and names of addresses of three references to: Richard Bylund, M.D., Hematology/Oncology Unit, 32 North Street, Burlington, VT 05401. UVM is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply. Applications will be accepted until the position is filled. The University of Arizona is an Affirmative Action/Equal Opportunity Employer. We especially invite women and underrepresented minorities to apply. The University of Arizona is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply. Applications will be accepted until the position is filled.
Pfizer is a lot more than a pharmaceuticals and healthcare industry leader. It's a group of people dedicated to discovering, developing and marketing innovative pharmaceuticals, animal health and specialty chemical products that improve the quality of life worldwide. As a Fortune 100 company, Pfizer is committed to continuing its remarkable growth by investing more than half a billion dollars annually in research and development.

**BS/MS Scientists**

If you have relevant laboratory experience and strong theoretical knowledge, take advantage of this opportunity to join multi-disciplinary teams in one of the following areas:

**Molecular Genetics**—Develop DNA sequencing methods/technology and maintain a program for sequencing cloned genes.

**Cellular Electrophysiology**—Use patch-clamp recording and video imaging technologies to investigate the role of lymphocyte ion channels in autoimmune diseases.

**Applied Biotechnology**—Create, develop and implement state-of-the-art assay methodologies leading to novel human therapeutics for several diseases.

**Cellular Immunology/Biochemistry**—Perform in vitro T lymphocyte activation, signal transduction and ion channel studies, and determine intracellular mechanisms of immunosuppressive agents.

**Neurochemistry**—Study pharmacotherapy of mental illness and central nervous system disorders.

**Atherosclerosis**—Develop screens for the identification of novel anti-atherosclerosis agents.

**Immunology/Biochemistry**—Investigate immune response during parasitic infections.

Our excellent benefits include competitive salaries, health and dental care, paid holidays and vacations, savings, investment and pension plans, and relocation assistance to our attractive Connecticut shore location.

To learn how you can be part of our success, send your resume to: Kym Goddu, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, CT 06340. We are an equal opportunity employer.
Career Opportunities In Antisense Therapeutics

ISIS Pharmaceuticals, located in Carlsbad, CA (San Diego County), is a pharmaceutical company focused on antisense oligonucleotide therapeutics. ISIS has innovative research programs, strong funding, a world-class scientific advisory board, excellent facilities and strong academic ties which make ISIS an exciting opportunity for outstanding individuals. Present openings in the Molecular and Cellular Biology and Medicinal Chemistry Department include:

Molecular Virologists

ISIS is seeking innovative Ph.D. and BS/MS scientists to develop programs in virology, particularly influenza CMV and HIV. Candidates should have a strong background in molecular biology and the ability to lead a molecular virology research program within a drug discovery effort. The program will be linked with a strong synthetic chemical effort providing novel oligonucleotide analogs designed to specifically regulate gene expression. Candidates should have at least two years experience past the Ph.D. Experience in a major pharmaceutical company is highly desirable.

Molecular Biologist/Biochemist

Inflammation Research

ISIS is seeking innovative Ph.D. and BS/MS scientists to develop programs in anti-inflammatory drug discovery. Candidates should have a strong background in the molecular biology and/or biochemistry of inflammatory responses. Candidates with experience in the signal transduction pathway of inflammatory mediators are highly desired. The program will be linked with a strong synthetic chemical effort providing novel oligonucleotide analogs designed to specifically regulate gene expression. Ph.D. candidates should have post-doctoral experience.

Biochemists/Molecular Biologists BS/MS

ISIS has several positions for BS/MS scientists with experience in biochemical and molecular biology techniques such as protein purification, DNA and RNA sequencing, cloning and cell culture.

Ph.D. Synthetic Organic or Medicinal Chemists

Several Sr. Scientists with Ph.D.'s in Synthetic Organic or Medicinal Chemistry are sought to serve as members of interdisciplinary antisense design and synthesis teams. These scientists will have at least three years of experience post Ph.D. in nucleoside and oligonucleotide chemistry or natural product synthesis. Candidates keenly interested in team-oriented, rational drug design along with documented achievements are highly desirable.

Analytical Development Chemists

Several experienced Ph.D. and BS/MS analytical chemists are required to perform analytical methods development in support of antisense oligonucleotide research and product development. Expertise in formulation/stability studies and GMP and IND regulations are desirable.

ISIS Pharmaceuticals offers a competitive salary, benefits, and substantial equity participation. Our new facility is located in San Diego County near the University of California, San Diego and other major scientific centers. Please submit a cover letter, cv, reprints of relevant publications, and names and telephone numbers of references to: Dr. David J. Ecker (Biology positions) or Dr. P. Dan Cook (Chemistry positions), ISIS Pharmaceuticals, 2280 Faraday Avenue, Carlsbad, CA 92008. An Equal Opportunity Employer.

ISIS Pharmaceuticals

Manager

MONOCLONAL ANTIBODY DEVELOPMENT GROUP

Directing the activities of our Monoclonal Antibody Development Group, the selected candidate will be a technical resource responsible for the design, development, and purification of new monoclonal antibodies. This position involves coordinating the Group’s activities with a variety of R&D and manufacturing areas as well as budgetary and managerial responsibilities. Qualifications include a Ph.D. in Molecular Biology, Immunology or related area, plus experience with monoclonal antibodies including hybridoma production, tissue culture and antibody purification. Experience with molecular biological techniques is a definite plus. Proven success in a management capacity is also required, as are exceptional interpersonal, written, and verbal communication skills.

We offer competitive compensation and benefits including profit sharing and a stock retirement plan. We are located in an attractive suburban area approximately 30 miles north of Chicago. For consideration, please send your resume to: Shannon O’Harra, Job #33910, Corporate Placement, Abbott Laboratories, One Abbott Park Road, Abbott Park, IL 60064. (To facilitate the handling of your resume, please indicate the job number on your cover letter or resume.) Abbott is an Affirmative Action Employer.

ABBOTT LABORATORIES

Manpower

Peptide Synthesis Research Associate

An opportunity is currently available within our Organic Chemistry lab for an individual with a BS or MS degree in Biochemistry or Chemistry. This individual will be responsible for preparing synthetic peptides as part of our effort to generate leads for new therapeutic products.

We offer a comprehensive benefits package and competitive salary. Interested candidates should send resumes to Sheri Rist, Genetics Institute, 87 Cambridge Park Drive, Cambridge, MA 02140.

An Equal Opportunity Employer M/F/H/V

Genetics Institute

Abbott Laboratories’ Diagnostics Division holds an undisputed leadership position in the development of medical diagnostic products. Our extensive technical resources create a superior environment for those who would like to make a significant personal and professional commitment.
The Natural Sciences and Engineering Research Council of Canada

REGISTER OF CANADIANS STUDYING ABROAD

The Natural Sciences and Engineering Research Council of Canada (NSERC) administers a Register of Canadian citizens and permanent residents who are currently enrolled in a postgraduate degree program or holding a postdoctoral appointment at a non-Canadian university or institute. The purpose of the Register is to facilitate their return to Canada by providing a means of contact with potential Canadian employers in industries, universities, and government departments. This service is offered free of charge to all participants.

**Operation:** In response to requests by participating Canadian employers, NSERC will provide the names, addresses, and relevant data of registrants with specified qualifications. Contact with selected registrants may then be initiated at the discretion of the employer.

**Registration:** Eligible Canadian students and fellows, and interested employers in Canada, who wish further information and/or registration forms should contact:

Administrator, Register of Canadians Studying Abroad, Natural Sciences and Engineering Research Council of Canada, 200 Kent Street, Ottawa, Ontario Canada K1A 1H5 Telephone: (613) 995-6060.

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**Hitchings-Elion Fellowships**

in the Biomedical and Behavioral Sciences

The Hitchings-Elion Fellowships will provide support for junior U.S. scientists (U.S. citizens or permanent residents) who have held their last doctoral degree less than ten years. The purpose of the fellowship is to promote scientific collaboration in basic or clinical research between British and American scientists. They will be awarded to support two years of collaborative research at the sponsor's laboratory in the United Kingdom and a third year at a sponsor's laboratory in the U.S.A. The Wellcome Trust will provide the financial support (between £12,792 and £19,613 annually depending on experience) for the first two years, £5,000 per year for research expenses in the U.K. and round trip economy class air fare for the fellow and up to three dependents. The Wellcome Trust will also provide an equivalent stipend in U.S. dollars for the third year. The Burroughs-Wellcome Fund will provide £7,500 for research expenses in the U.S.A.

The application deadline each year is January 10, beginning in 1991. Applications will be received at the National Institutes of Health where the initial review process will be conducted. Funding decisions will be announced by the Wellcome Trust approximately six months from the application receipt date.

Those interested in obtaining more information on this new program, the scientific review process or an application kit may contact:

**International Research and Awards Branch**

Fogarty International Center
Building 31, Room B2C21
National Institutes of Health
Bethesda, Maryland 20892
Telephone: (301) 496-1653
Fax: (301) 402-0779

Those having questions regarding the Fellowship in the United Kingdom should contact:

**Hitchings-Elion Fellowships**

The Wellcome Trust
One Park Square West
London NW1 4LJ
United Kingdom
Telephone: 071-486-4902
Fax: 071-487-4915

Those having questions regarding the fellowship in the United States should contact:

**The Burroughs-Wellcome Fund**

3030 Corwallis Road
Research Triangle Park, NC 27709
Telephone: (919) 248-4136
Fax: (919) 248-3052

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**A research worker in cell culture and bone tissue**

The profile: a Post-Doctorate graduate from university (PhD) if possible with a good knowledge of bone biochemistry.

Interested in the creation of new molecules, particularly for the treatment of osteoporosis.

He/she will be responsible for the culture unit in a young research team working on bone metabolism.

Please send a hand-written letter, C.V. and salary requirements to PUBLIVAL/9021 - 27 Route des Gardes, 92190 MEUDON (FRANCE).
**POSITIONS OPEN**

**THE UNIVERSITY OF ARIZONA**

**DEPARTMENT OF MICROBIOLOGY AND THE ARIZONA CANCER CENTER**

**FACULTY POSITION IMMUNOLOGY/CANCER BIOLOGY**

Applications are invited for a tenure-track position in the field of immunology/cancer biology. The applicant will lead the research effort in immunology within the Arizona Cancer Center. Research in the area of tumor immunology includes tumor regulation of pro- liferation and differentiation, cell-cell recognition, cell surface receptors, immunogenetics, lymphokines, and growth factors are of special interest. Skills in molecular immunology and cell biology are essential. However, outstanding scientists with other special skills will also be considered. Candidates for this position should have at least 2 years of pertinent postdoctoral experience. The successful candidate will be expected to develop a nationally recognized independent research program and participate in related departmental teaching. A wide variety of interactions with our faculty are possible in many areas of immunology, biochemistry, molecular and cellular biology, and clinical cancer research (including a recently established bone marrow transplant program). We provide excellent physical facilities, a stimulating research environment, and competitive salary and benefits. The recently completed Arizona Biotechnology Center and the Microbiological and Immunology Division is a major new contribution to the many scientific resources available at the University of Arizona. Applicants should provide curriculum vitae, a list of recent publications and a detailed description of research interests. Applications will be accepted until the position is filled. Send application to: Dr. Lorne A. Babikat, Associate Director (Research) Veterinary Infectious Disease Organization 124 Veterinary Road Saskatoon, Saskatchewan, Canada S7N 0W0

**PROTEIN BIOCHEMIST**

Science position for structure-function studies on human coagulation factors in nonprofit research organization. Ph.D. with experience in protein purification (immunodiffusion, FPLC, HPLC, conventional) and say. Salary: $25,000 and up, commensurate with experience. Send letter of application and curriculum vitae to: Dr. J.C. Roberts (DS/DF), American Red Cross, Holland Laboratory, 15601 Crabb's Branch Way, Rockville, MD 20855. Equal Employment Opportunity, M/F/H/V.

**POSTDOCTORAL POSITIONS**

Two postdoctoral positions. Experience in structure and function of proteins, glycoproteins, and enzymes required. Send curriculum vitae to: Dr. O. P. Bahl, 347 Cook Hall, State University of New York (SUNY), at Buffalo, Buffalo, NY 14260. SUNY is an Affirmative Action/Equal Employment Opportunity Employer.
Several positions are available for Protein and Drug Molecular Modellers at both junior and senior levels. There is also an opening for a Software Development Manager and for at least three new positions as general scientific programmers. Staff will be concerned with the BioEngine™ project, developing new design technologies, or using it to design new chemical products, either in-house or by joint collaboration with external organisations. The project demands willingness to work with exciting new approaches to molecular modelling and simulation, and a wide range of established methods. Software technologies include the GLOBAL™ high level language for chemists and molecular biologists, accessing the PROMETHEUS™ expert system for molecular modelling, and novel types of dynamics and neural net technologies. Hardware includes a Convex 220, Silicon Graphics, IBM and transputer equipment with linked access to Cray and IBM supercomputers. Excellent opportunities exist for R&D collaboration with major European universities and American hardware and biotechnology companies. Participation in basic research and scientific publication is encouraged.

Applications with C.V. to Mr John K Pool, Managing Director, PROTEUS INTERNATIONAL plc, PROTEUS HOUSE, 48 Stockport Road, Marple Cheshire, SK6 6AB. Telephone (061) 464 0191, Fax (01) 426 0192.

THE ROYAL SOCIETY
ROYAL SOCIETY RESEARCH PROFESSORSHIPS
The Royal Society invites applications for four Royal Society Research Professorships tenable from 1 October 1991 for research in the physical sciences (including mathematics, engineering and technology). Salaries will be well above the prevailing professorial minimum and include superannuation. Research professors may bid for annual research expenses of £13,500 or higher and for support for research or technical assistants, and there will be start-up grants of up to £35,000. Assistance will be given with removal expenses for successful applicants from overseas.

Appointments, which are tenable from 1 October 1991 and are open only to British citizens, are normally held at universities in the United Kingdom, and are for five years in the first instance. Details of tenure will be decided later but it is expected that one of the four vacancies will be renewable until retirement and the other three for one further five-year period after the initial five years.

Application details are available from Mrs U.M.A. Tokle, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG. (Fax 071-930 2170). The closing date for applications is 16 November 1990; no applications arriving after 4 p.m. on that date will be considered.

POST DOCTORAL FELLOWSHIP
Applied Dielectrics
$A32,471-$A34,887
CSIRO DIVISION OF APPLIED PHYSICS
National Measurement Laboratory, Lindfield NSW

General: The Division of Applied Physics applies the methods of physics and measurement science to the solution of problems of importance to Australian industry and the Australian community. An Electricity Supply Technology Project is supported within the Division's Applied Electricity and Magnetism Program. This project has significant interaction with electricity generation and distribution authorities and with associated manufacturing industry. The Division has a staff of some 280 and is principally located in a modern laboratory in the northern suburbs of Sydney. The Division has initiated a core research project in Applied Dielectrics to focus research on the mechanisms of insulation behaviour and to apply this knowledge to new diagnostic techniques and to the production of new insulating systems. It is envisaged that the study will examine both new and currently used insulating materials.

Duties: Participate in applied experimental research related to fundamental aspects of electrical insulation used in high-voltage systems. Develop a theoretical understanding of observed dielectric deterioration mechanisms in general and examine the phenomenon of Electrostatic Charging Tendency in liquids in particular.

Qualifications: A PhD degree or equivalent in physics, chemistry or engineering, about to be awarded or awarded within the last two years, with a thesis subject related to electrical insulation or dielectric phenomena. Proven ability to plan, perform and analyse experiments on dielectric materials.

Desirable: Some familiarity with high-voltage systems and electrical measurements. Tenure: A fixed-term appointment of 3 years with Australian Government Superannuation benefits available.

Further details: Selection criteria can be obtained by contacting Vivien Nissim on (02) 413 7452 and further details of the position can be obtained by telephoning Dr B. D. Inglis or Dr J. Ruggles on (02) 413 7211. Applications: Applications, including a full curriculum vitae and the names and addresses of three referees, should be addressed to:

The Chief,
CSIRO Division of Applied Physics
PO Box 218, Lindfield, NSW 2070,
AUSTRALIA

Closing date for applications: 28 September 1990.

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Please send a c.v. and a letter describing your experience & interests to: Dr. M.G. Shafro, NASA Ames Research Center MS262-1, Moffett Field, CA 94035.

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**St. Lawrence University**

**African Studies: Environment and Resource Use**

St. Lawrence University, with the support of a major grant from the Ford Foundation, seeks to fill a tenure-track position with a broadly trained individual in environmental issues and resource use. This position, which may be filled at the Assistant or Associate Professor level, will complement our nationally recognized undergraduate program in African Studies which includes a field component in Kenya. The home for this position will be determined by the professional background of the successful candidate. Possibilities include, but are not limited to, Environmental Studies, Biology, Sociology and Economics. The appointment will begin in Fall 1991.

We seek a person with expertise in ecological issues/natural resource use in the Third World, with a primary emphasis on Africa. Candidates should demonstrate interest in teaching in a liberal arts college setting, and show evidence or promise of productive scholarship. A completed Ph.D. is strongly preferred but advanced ABD candidates will be considered. In addition to teaching, this person will promote dialogue among faculty and students, both in the human and natural sciences, about issues of African development and the fragile ecosystems of the continent.

Applications, c.v. and three letters of recommendation should be submitted to:

Dr. David Lloyd
Department of History
St. Lawrence University
Canton, New York 13617

Review of applications will begin on November 30, 1990.

St. Lawrence University is an independent liberal arts institution in upstate New York with a student body of approximately 2000 undergraduates. The University is strongly committed to excellence in teaching, scholarship and faculty development, including support for faculty research and professional travel.

St. Lawrence University is committed to fostering multicultural diversity in its faculty, staff, student body and programs of instruction. As an Equal Opportunity/Affirmative Action employer, we encourage applications from women and minorities.
THE ROYAL SOCIETY
NAPIER RESEARCH PROFESSORSHIP

The Royal Society invites applications for the Napier Research Professorship, tenable from 1 October 1991, for research into the causes of cancer including any corresponding or allied disease and the means of its prevention, cure and alleviation. The salary will be on the prevailing UFC professorial minimum plus 40% and include superannuation. The Napier Research Professor may bid for annual research expenses of £13 500 or higher and for support for a research or technical assistant, and there will be a start-up grant of up to £35 000. A successful applicant from overseas will receive assistance with removal expenses.

The appointment must be held in an appropriate higher educational or research institution in the UK. There is no restriction as to citizenship of candidates. The tenure is for five years in the first instance and is then renewable until retirement.

Application details are available from Mrs U.M.A. Tokle, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG (Fax 071-930 2170). The closing date for applications is 16 November 1990; no applications arriving after 4 p.m. on that date will be considered.

PROVOST

Carnegie Mellon University, a private, co-educational institution with 7,500 students, seeks a Provost to serve as its chief academic officer in a new administration. The Provost has principal responsibility for educational and research policy, planning and budgets for the University. He/she also serves as Deputy President. Candidates must have an outstanding record in academic life and administration, as well as earned doctor's degree. Salary based on experience and qualifications.

Resume and names of three references to: Provost Search, Carnegie Mellon University, Warner Hall, Room 602, Pittsburgh, PA 15213.

Attn: Karen Proietti.
Deadline for applications is November 1, 1990.

Carnegie Mellon

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POSITIONS OPEN

MOLECULAR RADIOBIOLOGY

The Department of Radiation Oncology at the University of North Carolina (UNC) in Chapel Hill invites applications for a tenure-track position, rank dependent on qualifications. A Ph.D. candidate who will develop a strong research program with a specific emphasis on the application of modern molecular biological techniques to the study of cellular and tissue response to free radical damage. Preference will be given to candidates who have relevant postdoctoral experience and whose research programs complement existing programs in nuclear acid radiation chemistry and in cellular and tumor radiation biology. Applications, including curriculum vitae and the names and addresses of three academic references, should be sent by October 1, 1990 to: Dr. James A. Raleigh, Department of Radiation Oncology, North Carolina Memorial Hospital, Chapel Hill, NC 27514.

UNC is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to identify themselves voluntarily in their applications.

POSTDOCTORAL POSITION. Available to study the regulation of gene expression by yeast mating pheromones and the similarity of this system to the regulation of the c-fos protooncogene by growth factors in mammals. Candidates should have a Ph.D. and a background in yeast genetics and molecular biology. Send curriculum vitae and three references to: Dr. Brent H. Cochran, E17-517, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139.

POSTDOCTORAL POSITION. Available for research on mapping the antigenic and functional domains of human cytomegalovirus glycoproteins. Work includes gene cloning, transient expression in eukaryotic cells, construction of mutant viruses, and transformed cell lines. Preference will be given to applicants with a background in molecular biology. Interested candidates should submit curriculum vitae and three letters of reference to: Dr. Lenore Pereira, School of Dentistry, Division of Oral Biology, University of California San Francisco, HSSW-604, San Francisco, CA 94143. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Available immediately to participate in studies on structure, biochemistry, and function of low molecular weight G proteins in phagocytic cells. Salary: $25,000 to $28,000. Send curriculum vitae and names of three references to: Daniel R. Rosensweig, M.D., Laboratory of Clinical Investigation, National Institute of Allergy and Infectious Diseases, Building 10, Room 215, National Institutes of Health, Bethesda, MD 20892.

Contact: Daniel R. Rosensweig, M.D., telephone: 301-496-1843; Building 10 Room 215. NIH is an Equal Opportunity Employer.

POSTDOCTORAL POSITION IN MICROBIOLOGY/BIOCHEMISTRY. Available to study bacterial degradation of organic pollutants found in groundwater. Emphasis is on development and study of strains able to degrade substituted aromatic compounds. Background in microbial physiology, molecular biology, and strain construction helpful. Position is at Tyndall Air Force Base, Panama City, Florida. Annual stipend range is $29,150 to $41,400. Doctoral degree received within 3 years of starting date required. As U.S. citizenship or PRA status. Contact: Dr. R.B. McClane, Science/Engineering Education Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117. Telephone: 615-576-3465. U.S. citizenship required. NIH is an Equal Opportunity Employer.

POSTDOCTORAL POSITION IN MOLECULAR PATHOGENESIS. A postdoctoral position is available to study interactions between Clostridium perfringens enterotoxin and mammalian membranes. Experience in receptor purification or cloning, hybridoma production, or membrane biochemistry helpful, but not essential. Excellent research environment; growing department involved in new laboratories with modern core facilities. Send curriculum vitae and the names of at least two references to: Dr. Bruce A. McClane, E1240 South Tower, Department of Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine, Pittsburgh, PA 15261.

POSITIONS OPEN

POSTDOCTORAL POSITION. Available in biochemistry and immunology to study effects of toxic chemicals on immune cells: emphasizing T cell function and also the interactions and organization of proteins in the nuclear matrix. Position funded for 3 years. Send curriculum vitae and three references to: Dr. C. R. Verhey, Department of Chemistry, Tulane University, New Orleans, LA 70118.

POSTDOCTORAL POSITION. Ph.D. (physiology, animal science, nutrition, or related area) for work in NIH-funded study of the effects of parental nutrition on intestinal growth and development in neonatal swine. Experience in intestinal function (e.g., transport, morphology, enzyme analysis, etc.) and experience handling experimental animals is preferred. Send curriculum vitae and three letters of recommendation to: Mark G. Clemen, Ph.D., Pediatric Surgical Laboratory, Johns Hopkins University, School of Medicine, Department of Surgery, CMSC 7-116, 600 North Wolfe Street, Baltimore, MD 21205.

POSTDOCTORAL POSITION IN MOLECULAR NEUROBIOLOGY. Exciting opportunities to do postdoctoral research in a well-established laboratory studying nicotinic acetylcholine receptors and related proteins and the autoimmune response to muscle nicotinic receptors. Candidates must have a Ph.D. or M.D. with experience in molecular genetics or monoclonal antibodies and protein chemistry. Molecular genetics projects involve the use of DNA cloning, mutagenesis, and expression in Xenopus oocytes, transfected cell lines, and baculovirus infected cells. Protein chemistry projects closely integrated with the molecular genetics projects involve making monoclonal antibodies, immunoaffinity purification of receptors, and their characterization. Send curriculum vitae and names, addresses, and telephone numbers of three references to: Jon Lindstrom, University of Pennsylvania School of Medicine, 503 Clinical Research Building, 422 Curie Boulevard, Philadelphia, PA 19104-6140. FAX: 215-573-2028. Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF SASKATCHEWAN
DEPARTMENT OF BIOLOGY

POSTDOCTORAL POSITION

(Readvertisement: Previous applicants need not apply.)

Applications are invited for a postdoctoral position in insect reproductive physiology. Candidates should have expertise in modern biochemical techniques, and some knowledge of insect tissue culture would be advantageous. The successful applicant will participate in an ongoing study of the regulation and functions of reproductive activity in the male insect. Salaries will be in accordance with NSERC Canada guidelines (current range: Canadian $22,000 to $26,500 per annum). Please send curriculum vitae and names and addresses of three referees to:

Professor C. Gillott
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Saskatoon, SK S7N 0W0, Canada

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SCIENCE, VOL. 249
66 Fellowships will be awarded by the Howard Hughes Medical Institute for study toward a Ph.D. or Sc.D. degree in the biological sciences listed below. Awards, based on an international competition each year, focus on research directed to an understanding of basic biological processes and disease mechanisms. Fellowships may be held at any academic or research institution with appropriate degree programs.

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- Up to five years of support possible
- $13,500 annual stipend, effective June 1991
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**Fields of Study**
- Continuing as eligible fields:
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  - immunology
  - pharmacology
  - biophysics
  - microbiology
  - physiology
  - cell biology
  - molecular biology
  - structural biology
  - developmental biology
  - neuroscience
  - virology
  - genetics
  - New eligible fields:
    - biostatistics
    - epidemiology
    - mathematical biology

**Eligibility**
- Beginning graduate study (prior study toward an M.P.H. or a medical degree does not rule out eligibility)
  - college seniors
  - first year graduate students
  - medical students and physicians (M.D., D.O., D.D.S., or D.V.M.) not past the first year of a Ph.D. or Sc.D. degree program
- Not in a funded M.D./Ph.D. program
- No citizenship requirements: U.S. citizens may study abroad, but others must study in the United States

**Schedule**
- Application deadline: November 9, 1990
- Awards announced: early April 1991
- Fellowships start: June 1991 - January 1992

**For 1991 Program Announcements, Eligibility Guidelines, and Applications**
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National Research Council • 2101 Constitution Avenue, N.W.
Washington, D.C. 20418 • United States of America
Telephone (202) 334-2872

The Howard Hughes Medical Institute welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.
**POSTDOCTORAL POSITIONS**

**POSTDOCTORAL NEUROSECRETION**

Available immediately to study receptors, calcium signaling, and secretory vesicles in the adrenal chromaffin cell. Experience desirable in: cell calcium measurement, microspectrofluorimetry, cell permeabilization, radioligand binding, inositol phospholipid assay, and patch clamp electrophysiology. Send curriculum vitae, bibliography, and names of three references to: Dr. Allan Schneider, Department of Physiology, Albany Medical College, Albany, NY 12208.

**POSTDOCTORAL TRAINING POSITION, NEUROBIOLOGY OF AGING**

The University of California, Irvine, anticipates filling several NIH training grant research positions in the area of successful aging and age-related dementia, particularly Alzheimer's disease, by mid-August. Interested postdoctoral positions are available in a variety of research areas, including synaptic plasticity, neurotrophic factors, amyloid precursor protein function, programmed and excitatory amino acid receptor function. Participating faculty include Carl Cotman, Rachael Neve, Dennis Cunningham, Gary Lynch, James Fallon, Edward Jones, Ralph Bradshaw, Mary-Louise Keen, Michael Leoon, Ira Lott, John Marshall, James McGaugh, and Arnold Starr. Salaries for training positions are commensurate with education and experience and include postdoctoral training grant, Department of Psychology, University of California, Irvine, CA 92717. The University of California, Irvine, is an Equal Opportunity/Affirmative Action Employer. The department encourages female and minority applicants.

**CELLULAR BIOLOGY OF THE HEART: POSTDOCTORAL TRAINING**

NIH-funded postdoctoral positions for training in cellular biology of the heart are available in the Department of Cellular and Molecular Physiology at the College of Medicine of Pennsylvania State University. A multidisciplinary program is offered to provide a background in the cell biology, molecular biology, and biochemistry of cardiomyocytes, in addition to specific laboratory training. The research interests of the training faculty, who are members of the departments of Physiology and Pharmacology, include the regulation of myocardial gene expression, regulation of gene expression by growth factors, and RNA synthesis and degradation, transmembrane signaling mechanisms, receptor-ligand interactions, control of cellular transport, regulatory mechanisms of protein phosphorylation, and regulation of vascular function. Highly qualified U.S. citizens, who hold a Ph.D. or M.D. may apply by submitting their curriculum vitae, a statement of goals, and the names of three references to: Dr. Eugene Rannels, Ph.D., Program Director, Department of Cellular and Molecular Physiology, The Milton S. Hershey Medical Center, Pennsylvania State University, P.O. Box 850, Hershey, PA 17033. Pennsylvania State University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

**POSTDOCTORAL RESEARCH ASSOCIATE**

Position available immediately to join a group characterizing developmental markers for transformation and regression of congenital melanoma in interbred swine. Experience with basic molecular and immunogenetics essential. Send curriculum vitae and names of three references to: Craig W. Beattie, Ph.D., Division of Cellular and Molecular Pathology, University of Illinois at Chicago, 840 South Woude Street (m/c 820), Chicago, IL 60612.

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

**COLUMBIA UNIVERSITY POSTDOCTORAL RESEARCH ASSOCIATE**

A position is available to study the structure and function of HIV-1 genome. Emphasis on the mechanism of action and genetic determinants of low-cytotoxic HIV-1 isolate and its effects on cellular gene expression and cell functions. Candidates should have a Ph.D. or equivalent and a strong background in virology and molecular biology. Applicants should submit curriculum vitae with a list of publications, a statement of research interests, and names of three references to: Dr. D. J. Volek, Molecular Virology Laboratory, College of Physicians and Surgeons, St. Luke's/Roosevelt Hospital Center, 432 West 58th Street, New York, NY 10019.

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**RESEARCH ASSOCIATE SPECTROCOPTIST**

Conduct advanced research of muscle energy metabolism and function using nuclear magnetic resonance spectroscopy and phosphorus-31 nuclear magnetic resonance techniques on human subjects and parallel studies on animal models. Ph.D. in physiology. Two-plus years of postdoctoral experience in NMR spectroscopy research applications in muscle research. Experience must include research in the biology of muscle contraction, including physiology, molecular biology, muscle physiology, and neurophysiology. Knowledge of muscle disease, fatigue, and magnetic resonance spectroscopy also required. Experience investigating metabolic and mechanical properties of both human muscle tissue in vitro and in vivo, and using phosphorous nuclear magnetic resonance spectroscopy, physiological recording techniques, isotopic and isotonic recording techniques, and computerized data analysis methods. Salary: $28,000 per year; 40 hours per week. Place of employment and interview: San Francisco, California. If offered employment, must show permanent resident or Clip ad and send with resume to: Job No. BLW18036, P.O. Box 9560, Sacramento, CA 95823-0560 not later than 29 September 1990.

**APPLICATIONS SCIENTIST/ENGINEER**

Leading manufacturer/distributor of electronic instruments and computer-based systems for research in neurosciences and cell biology seeks outgoing, "live wire" assisted customers with the use of its products. Candidates should have a minimum of a bachelor's degree (advanced degree helpful), electronics and software background, excellent communication (spoken and written), and a minimum of 3 years of experience: technical product selling, laboratory research, or engineering. Excellent opportunity with a growing 30-year-old company. Send cover letter, résumé, and salary history to:

Medical Systems Corporation
One Plaza Plaza
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Position Available
National Institute on Alcohol Abuse and Alcoholism
Public Health Service
Department of Health and Human Services

This amends the previous announcement for this position by extending the closing date to October 1, 1990. Applicants who applied under the previous announcement need not reapply.

The National Institute on Alcohol Abuse and Alcoholism (NIAAA), one of three scientific Institutes of the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA), is seeking nominations and applications for the position of Director, Division of Intramural Clinical and Biological Research (DICBR). The Director, DICBR, has the primary responsibility for the scientific and administrative management of the NIAAA intramural research program.

Responsibilities of the Director, DICBR, include directing programs of multidisciplinary biomedical and clinical research for NIAAA, providing advice to the Institute Director on Institute intramural research programs, and participating with the Institute Director and other senior staff in the development and implementation of broad Institute decisions on such matters as development, program direction, planning, budget formulation, and resource allocation.

The person selected for this position (located in Bethesda, Maryland) will receive a career appointment to the Senior Executive Service (SES) with an annual salary of $71,200 to $99,200. The top figure includes base salary and an allowance of up to $20,000 for physicians. The proposed income range to be effective January 1991, pending issuance of an Executive Order, is $84,000 to $117,000 (again including the maximum $20,000 allowance for physicians). Senior Executive Service members are also eligible for performance awards of 5 to 20 percent of base salary.

Minimum qualification requirements include a degree of Doctor of Medicine, Doctor of Philosophy, Doctor of Osteopathy, or a bachelor's or higher degree in an academic field related to the health sciences, and progressively responsible experience in developing, administering, and evaluating health research programs.

Additional information about the position and qualifications requirements may be obtained by contacting Ms. Lynn E. Brooks-Smith, (301) 443-5030. An SF 171 (Application for Federal Employment) accompanied by a current curriculum vitae and bibliography should be submitted to Ms. Brooks-Smith at the Division of Personnel Management, ADAMHA, Room 15C-26, 5600 Fishers Lane, Rockville, Maryland 20857. Complete application material (including SF 171) must be postmarked by the closing date of October 1, 1990. Resumes are not acceptable for entrance into the Senior Executive Service.

Applications from women and minority group members are solicited.

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Reply to:

Debra Wright, Employment Manager
AAAS
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- **APPLICATION INFORMATION:** Lady Davis Graduate and Post-Doctoral Fellows are selected on the basis of demonstrated excellence in their studies and promise of distinction in their chosen fields of specialization.

- Graduate applicants may apply during their senior undergraduate year or after they have undertaken study in a graduate school. Post-doctoral applicants to the Hebrew University may apply not later than 3 years after completion of their doctoral dissertation.

- The Fellowships are tenable for one academic year and may be extended for another year. The grant covers travel, tuition fees and reasonable living expenses.

- **VISITING PROFESSORSHIPS** are intended for candidates with the rank of Full or Associate Professor at their own institution. They are tenable for one semester to a full academic year. The grant includes a professorial salary and travel.

- **Deadline:** November 30, 1990.

Requests from applicants (including Israelis) indicating category of Fellowship should be sent to P.O. Box 1255, Jerusalem 91904, ISRAEL. Tel/Fax 972-2-663848.

EOE
RESEARCH ASSOCIATES (B.S., M.S., or Ph.D.) with at least 2 years of laboratory experience in sterile mammalian cell culture techniques. Will be part of a team involved in drug discovery and tissue culture preclinical and clinical islet cell transplant trials. Send resumes to: CBO, Cell Biotech, Inc., 9911 West Pico Boulevard, Suite 200, Los Angeles, CA 90035 or FAX: 213-557-8429.

RESEARCH ASSOCIATE
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One position will be available 1 January 1991 for an individual to actively participate in research and to supervise the scientific program of a team consisting of over 40 members. A Ph.D. in biomedical sciences is required, and supervisory/administrative experience is desirable. Four major areas of investigation include: comparative vertebrate physiology, hypertension, and cardiac cell biology. Expertise in all areas is preferred.

Please send curriculum vitae and two letters of reference before 31 October 1990 to: Dr. Peter K. T. Pang, Professor and Chairman, Department of Physiology, University of Alberta, Edmonton, Alberta T6G 2H7, Canada.

The University of Alberta is committed to the principle of 
Equity in Employment. The university encourages applications from aboriginal persons, persons of visible minority groups, and women. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

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RESEARCH SCIENTIST. Require Ph.D. in applied mathematics/engineering. Job duties require research background in ocean hydrodynamics and wave scattering, mathematical modeling, signal processing, data analysis, and computer simulation. Annual salary: $40,000. Job site and interviews in Pasadena, California. Send this ad and your resume or letter of qualification to: Job #CP7723, P.O. Box 9560, Sacramento, California 95823-0560 no later than 28 September 1990.

RESEARCH SCIENTIST, Madison, Wisconsin. Pharmaceutical firm seeks a motivated and articulate scientist to expand its R&D program in the area of thrombosis, hemostasis, and thrombolysis. Ph.D. with 3 to 5 years of experience or equivalent required. You must have a thorough knowledge of coagulation biochemistry and protein extraction, characterization, and assay techniques. Apoptotic processing and GMP experience in the pharmaceutical industry a plus. Submit résumé with salary history/requirements to: Ms. K. Quine, GenTrac, Inc., 2228 Evergreen Road, Middleton, WI 53562.

ASSOCIATE RESEARCH SCIENTIST. Position available to study the physiological basis for neural activity of compounds developed in our laboratory. Experience in enzymology, nucleic acid biochemistry, virology, and cell culture technique absolutely required. Send curriculum vitae and three letters of reference to: Dr. W. Prusoff, Department of Pharmacology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510. An Equal Opportunity/Affirmative Action Employer.

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