POSITIONS OPEN

ANATOMY AND PHYSIOLOGY
KANSAS STATE UNIVERSITY
COLLEGE OF VETERINARY MEDICINE

Applications are invited from anatomists at the ASSISTANT PROFESSOR level who can participate in a team-taught veterinary gross anatomy course. It is expected that the successful candidate will hold both the D.V.M. and Ph.D. degrees and will have an established research program in neurobiology, exercise physiology, or molecular biology. Preference will be given to individuals with experience using contemporary ultrastructural and quantitative morphometric research techniques.

Applications should include a cover letter, curriculum vitae, statement of research and teaching interests, three letters of recommendation, and reprints of three representative publications. The earliest starting date is 15 August 1991. However, applications will be received until the position is filled.

Send applications to:

Dr. Jon D. Dunn, Ph.D.
Professor and Department Head
Department of Anatomy and Physiology
VMS 228
College of Veterinary Medicine
Kansas State University
Manhattan, KS 66506

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

MOLECULAR AND CELLULAR ASPECTS OF HORMONE ACTION AND SIGNAL TRANSDUCTION

The Banting and Best Department of Medical Research, University of Toronto, is seeking candidates for the position of ASSOCIATE/ASSISTANT PROFESSOR tenure stream. The position is available 1 July 1992 and will carry an initial appointment of 5 years at a competitive salary.

Candidates should have a strong research background and be prepared to develop a research program in molecular and cellular aspects of signal transduction (for example: mechanisms of signal transduction, surface and intracellular receptors, cyclic regulation, regulation of gene expression, diabetes research). The successful candidate will be expected to obtain independent research grants, to spend at least 75% of their time in research, and to participate in graduate and undergraduate training.

The University of Toronto encourages both women and men to apply for positions.

Applicants should forward curriculum vitae and an outline of research interests and arrange for three letters of reference to: Dr. Cecil C. Yip, Professor and Chair, Banting and Best Department of Medical Research, University of Toronto, 112 College Street, Toronto, Ontario, Canada.

In accordance with Canadian immigration regulations, this advertisement is directed to Canadian citizens and permanent residents of Canada.

ASSISTANT PROFESSORS IN BIOTECHNOLOGY, INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY

Applications are invited from Indian nationals for assistant professor positions in bioscience and engineering group. Qualifications: Ph.D. with minimum of 3 years of research experience either in microbiology, immunology, molecular biology, biophysics, or biochemical engineering.

Biodata with three letters of recommendations may be sent to: Registrar, Indian Institute of Technology, Powai, Mumbai, India.

RESEARCH ASSISTANT PROFESSOR. The Gynecologic Oncology Section of the Department of Obstetrics and Gynecology at the University of Oklahoma (OU) Health Sciences Center is seeking applicants for an assistant professor of research. Has potential for upgrade to tenure-track appointment. Requires Ph.D. in molecular biology. Postdoctoral research experience in molecular biology and experience with techniques is desirable. Technical and laboratory support available. Salary: $30,000 to $35,000, depending upon qualifications. Send curriculum vitae and three letters of reference to: Joan L. Walker, M.D., Department of Obstetrics/Gynecology, OU Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190. Goal is to hire by 1 September 1991, but curriculum vitae accepted until filled. The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

HEALTH SCIENTIST IN NEUROSCIENCE

Hines Veterans Administration/Loyola Medical Center (VAMC), Chicago. ASSISTANT PROFESSOR level position in VA/Loyola for clinical and basic research in neurotransmitter and neurochemical abnormalities related to neurodegenerative disease and/or brain disorders. Submit curriculum vitae and three references to: Dr. George J. Siegel, M.D., Neuroscience Service (1277), VAMC, Hines, IL 60414.

RESEARCH ASSISTANT/ASSOCIATE PROFESSOR, Tulane University/Cardiology. To work in the area of mechanisms of extracellular matrix degradation. Submit curriculum vitae and three references to: Dr. Andrew J. Bud, Chief, Cardiology Section, Tulane University School of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112. Tulane is an Affirmative Action/Equal Opportunity Employer.

NEUROBIOLOGIST

The Department of Anatomy, Wright State University School of Medicine, invites applications for a tenure-track faculty position at the ASSISTANT PROFESSOR level. The applicant should have Ph.D., M.D., or equivalent degree with postdoctoral experience. Preference will be given to individuals with research interests in neurobiology. The candidate will be expected to carry on an active research program involving extramural funding. Primary teaching responsibility will be in medical neuroscience. Women and minorities are encouraged to apply. Applicants should forward curriculum vitae, research interests, three recent reprints, and the names of three references to:

John C. Pearson, Ph.D.
Chair, Search Committee
Department of Anatomy
Wright State University
School of Medicine
Dayton, OH 45435

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

PROFESSOR OF EPIDEMIOLOGY (INFECTIOUS DISEASES)

The Department of Epidemiology and Public Health, Yale University School of Medicine, announces a position at the full professor level for a leader in the field of infectious disease epidemiology. We are looking for a physician who has experience in microbiology, is versed in molecular technology and/or serological orientation, and has done epidemiologic field research in the tropics. The successful candidate will be expected to assume a leadership role in the Department of Epidemiology and Infectious Diseases in the M.P.H., Ph.D. and M.D. students and to help develop an externally funded research program. Preference will be given to persons with prior scientific management experience and whose research includes an overseas component. Applicants should send full curriculum vitae, a statement of current and future research interests, and three letters of reference by 1 September 1991 to: Dr. Robert B. Tesh, Yale Arbovirus Research Unit, Department of Epidemiology and Public Health, Yale University School of Medicine, P.O. Box 5333, New Haven, CT 06510. Yale University is an Equal Opportunity/Affirmative Action Employer.

THE ERNA AND JAKOB MICHAEL VISITING PROFESSORSHIPS 1992-93

THE JOSEPH MAYERHOFER VISITING PROFESSORSHIP 1992-93

THE ROSIE AND MAX VARGO VISITING PROFESSORSHIPS 1992-93

The Weizmann Institute of Science, Rehovot, Israel, offers a limited number of visiting professorships in the natural and exact sciences.

The visiting professorships are invited for candidates already holding the rank of full professor or equivalent and will be for a duration of 2 months to 1 year.

Deadline for submission of completed applications is 30 November 1991.

For further information or application forms, please contact: The Academic Affairs Department, Rehovot, Institute of Science, Rehovot 76100, Israel. Tel: 972-8-581300. FAX: 972-8-471667. Bitnet: RSMARJ@WEIZMANN.
POSITIONS OPEN

Assistant Professors. The Department of Anatomy and Cell Biology at Temple University School of Medicine is seeking applicants for two tenure-track positions at the rank of assistant professor. The successful candidates for this position will be expected to teach gross anatomy or histology to medical or dental students and to establish an extramurally funded research program. Although the specific research area is open, it is preferred that each candidate’s research utilize contemporary approaches. The department has strength in developmental biology, reproductive biology, neurobiology, radiation biology, bone cell biology, molecular biology of angiogenesis, cell biology, and cardiovascular and diagnostic imaging research. Candidates must have a Ph.D. or M.D. degree, postdoctoral experience, and a record of research accomplishments. Also, previous exposure to the anatomical science is expected and teaching experience is preferred. We expect to fill these positions by July 1992. Qualified applicants are encouraged to send their curriculum vitae and three letters of reference by 15 October 1991 to: Search Committee, Department of Anatomy and Cell Biology, Temple University School of Medicine, 3420 North Broad Street, Philadelphia, PA 19140. Telephone: 215-221-3165. Temple University is an Affirmative Action/Equal Opportunity Employer.

Assistant professor positions in vascular cell biology

Two positions are available effective 1 September 1991: one requires experience in molecular and cell biology of angiogenesis or other related expertise in cell physiology of lymph vessels. Candidates must demonstrate the ability to conduct a vigorous research program. The tenure-track appointees will join a physiology faculty deeply involved in cardiovascular research and will participate in its medical and graduate training programs. Send curriculum vitae, summary of research interests, and three names of references to: Dr. Harris J. Granger, Professor and Head, Department of Physiology, College of Medicine, Texas A&M University, College Station, TX 77843. Texas A&M University is an Affirmative Action/Equal Opportunity Employer.

Lecturer Microbiology, cell and Molecular biology laboratories

The University of Michigan

The Department of Biology at the University of Michigan announces the availability of a non tenure-track lecturer position. The term of appointment is for a period of 3 years and is subject to renewal based on satisfactory performance. The lecturer will serve as coordinator and supervisor of instruction in upper-division laboratory courses in microbiology, cellular and molecular biology. A relevant Ph.D. degree is required, along with experience in teaching undergraduate courses in areas similar to microbiology and cellular and molecular biology. In addition to general supervisory duties, the lecturer will include working with faculty to update laboratory experiments and training of graduate student teaching assistants who serve in the laboratories. Appointments are on a 12-month basis and include a liberal benefits package. The position is available 1 September 1991 and the deadline for receipt of applications is 15 January 1992. Applications should include curriculum vitae and three letters of recommendation to: Chair, Lecturer Search Committee Department of Biology The University of Michigan Ann Arbor, MI 48109-1048

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

Faculty Positions Department of Surgery

The University of Chicago

The Department of Surgery at the University of Chicago wishes to invite applications and nominations for several tenure-track positions to be filled in the 1991 to 1992 academic year. Candidates should be Board-certified or Board-eligible in the specialty. In addition to general surgery, positions are available in cardiac surgery, neurosurgery, oral and maxillofacial surgery, orthopaedic surgery, thoracic surgery, and neck surgery. Pediatric surgery, plastic and reconstructive surgery, thoracic surgery, transplantation surgery, vascular surgery, and urology. Relevant areas of research include teaching, clinical and/or basic research, and patient care. Applications should include curriculum vitae, a list of publications, and the names and addresses of three individuals from whom reference may be solicited. We have no formal deadline, we would appreciate receiving applications by 15 October 1991. Please send applications or nominations to: George E. Block, M.D., Acting Chairman Department of Surgery The University of Chicago 5841 South Maryland Avenue, Box 168 Chicago, IL 60637

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

Positions Open

Assistant professor positions in vascular cell biology

Two positions are available effective 1 September 1991: one requires experience in molecular and cell biology of angiogenesis or other related expertise in cell physiology of lymph vessels. Candidates must demonstrate the ability to conduct a vigorous research program. The tenure-track appointees will join a physiology faculty deeply involved in cardiovascular research and will participate in its medical and graduate training programs. Send curriculum vitae, summary of research interests, and three names of references to: Dr. Harris J. Granger, Professor and Head, Department of Physiology, College of Medicine, Texas A&M University, College Station, TX 77843. Texas A&M University is an Affirmative Action/Equal Opportunity Employer.

Full professors. Applications for invited from suitably qualified persons for positions at the level of full professor in the Faculties of Medical Sciences and Natural Sciences. We are searching for candidates to provide leadership in development and teaching and research programs in the following areas: hematology, microbiology, physiology, pathology, clinical surgery, organic chemistry, physical chemistry, computer science, and mathematics. Annual basic salary in the range of $227,853 to $274,881. Allowances and other benefits provided. Applicants should send their curriculum vitae, a summary of research experience, and names of three (3) referees to: The University Registrar, Attention: Assistant Registrar (Centre), The University of the West Indies, Mona Campus, Jamaica.

The University of the West Indies

Mona campus, Jamaica

Full professors. Applications for invited from suitably qualified persons for positions at the level of full professor in the Faculties of Medical Sciences and Natural Sciences. We are searching for candidates to provide leadership in development and teaching and research programs in the following areas: hematology, microbiology, physiology, pathology, clinical surgery, organic chemistry, physical chemistry, computer science, and mathematics. Annual basic salary in the range of $227,853 to $274,881. Allowances and other benefits provided. Applicants should send their curriculum vitae, a summary of research experience, and names of three (3) referees to: The University Registrar, Attention: Assistant Registrar (Centre), The University of the West Indies, Mona Campus, Jamaica.

Eccological Modeling/Environmental Toxicology

A tenure-track research/teaching appointment up to the level of Assistant Professor, offered by the Department of Environmental Toxicology and the Institute of Wildlife and Environmental Toxicology, is available. Responsibilities include involvement in the teaching, movement and effects of contaminants in wildlife to include prediction of effects from multiple contaminants. Models will be based on toxicology research data from vertebrate and invertebrate species and/or integrated models of organ and effects and models and population models is essential as it advanced computer skills. The integration of ecosystem modeling with GIS technology to develop modeling processes that involve geographic and landscape variables is essential. Requirements include Ph.D. in an appropriate discipline and research experience as demonstrated by publication record and other achievements. Send curriculum vitae, letter of application, and list of references by 19 July 1991 to: Dr. Raymond Noble, Department of Environmental Toxicology, P.O. Box 709, Pendleton, SC 29670.

Equal opportunity/Affirmative Action Employer.

Superintendent of the West Central Experimental Station

University of Minnesota, Morris

The Minnesota Agricultural Experiment Station, University of Minnesota, Morris, invites applications for a 12-month administrative position as superintendent of the West Central Experiment Station at Morris, Minnesota, with possible faculty rank and tenure in a relevant discipline. Qualifications: M.D. in an agricultural, or related science with a minimum of 8 years of experience in research. Application deadline is 15 August 1991. For complete job description, call Philip O. Larsen at 612-625-8200. The University of Minnesota is an Equal Opportunity Educator and Employer.

Research Associate or Research Assistant Professor

Position available for Ph.D. in molecular cell biology or related area for studies of membrane-bound transport proteins and their regulation including resistance to directed mutation. Salary is dependent upon qualifications and experience, with excellent benefits. Faculty appointment with prior postdoctoral experience. Send curriculum vitae and names, addresses, and telephone numbers of three references to: Chairman of SR Search Committee, Department of Biological Chemistry, University of Maryland School of Medicine, 2217 West Redwood Street, Baltimore, MD 21201. Affirmative Action/Equal Opportunity Employer.

Director of Environmental Health and Safety

The University of Chicago

The University of Chicago is seeking an independent clinical investigator (M.D. or Ph.D.), interested in the study of clinical geriatric syndromes such as cardiovascular disorders, hypertension, and/or hyperlipidemia. The successful candidate will join a multidisciplinary team of medical and social scientists and will pursue independent research, participate in collaboration and advocacy in the development and administration of the Research Institute. He or she will be able to devote at least 75% of their time research, teaching, and/or administration by a core research staff, computer facility, clinical research center, and, extensive clinical databases. There are opportunities to join the Harvard Medical School Division on Aging, interact with geriatric faculty and fellows, and participate in medical teaching and patient care activities. Applicants must qualify for appointment at the assistant professor level or higher at Harvard Medical School, and be competitive for research grant funding. Send letter and curriculum vitae to: Lewis Lipsitz, M.D., Rehabilitation Center for Aged, 1200 Centre Street, Boston, MA 02131.

Environmental professionals sought, B.S., M.S., Ph.D., for environmental analysis and permitting. Prefer training and/or experience in eastern and central United States. Experience sought in terrestrial and wetland biological sciences, aquatic ecology, environmental toxicology, environmental statistics, air pollution modeling, buffer zones, data management, GIS and information systems (GIS). Desire to interact with clients and regulatory agencies a must. Send resume to: Breedeve, N.W., Environmental Research, P.O. Box 72578, Orlando, FL 32872-0037. An Equal Opportunity Employer.

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POSI TIONS OPEN

DEAN OF THE MEDICAL SCHOOL
UNIVERSITY OF HEALTH SCIENCES
THE CHICAGO MEDICAL SCHOOL

Applications are invited for the position of dean of the Medical School. The dean reports to the president of the university and is the chief academic officer of the Medical School with responsibility for the development, administration, and execution of the academic and professional programs. The Medical School, located in modern suburban facilities on the North Chicago campus, comprises approximately 300 faculty, 200 graduate students, 30 postdoctoral trainees, and 600 medical students. In addition to a medical degree the school offers the master's and doctoral degrees in the fields of applied physiology, biochemistry, cell biology and anatomy, medical physics, microbiology and immunology, neuroscience, pathology, pharmacology and molecular biology, nutrition, physiology and biophysics, and psychology.

The individual selected must be a dynamic leader with a strong commitment to excellence in teaching, research, and service and have a vision of the future that is compatible with Chicago Medical School's unique attributes. Additional requirements for this position are: a successful record of academic achievement and administrative leadership in medical education; a commitment to maintain and expand medical, graduate, and postgraduate instruction, research and public service; strong management skills, and experience with community and university hospitals.

The position is available 1 July 1991 and applicants will be considered until the position is filled. Applicants should have a curriculum vitae, the names of referees, and other supporting materials to: Richard Hawkins, Ph.D., Chair, Search Committee, University of Health Sciences/The Chicago Medical School, 3553 Green Bay Road, North Chicago, IL 60064.

University of Health Sciences/The Chicago Medical School is an Equal Opportunity/Affirmative Action Employer.

CARDIOVASCULAR RESEARCH SCIENTISTS. The newly established Center for Cardiovascular Research and Comparative Medicine now offers several positions for D.V.M., M.D., or Ph.D. in molecular biology and pathophysiology of cardiovascular systems, including DIVISION HEAD OF MOLECULAR BIOLOGY and DIVISION HEAD OF PATHOBIOLOGY. Each division head is leader of ten investigators of veterinarians, physicians, or scientists in the fields of pathology, cardiology, biophysics, and molecular biology. The successful candidates are expected to be on site no later than spring 1992. Salary is negotiable. Applicants' deadline is 30 August 1991, but the search may be extended. Curriculum vitae, two representative publications, and names, addresses, and telephone and fax numbers of four individuals for references are required. A letter of application should also include current and long-term research interests. Send to: Redman Chu, D.V.M., Ph.D., Director, Pig Research Institute, P.O. Box 23, Chunan, Miaoli, Taiwan, Republic of China.

HARVARD MEDICAL SCHOOL
DEPARTMENT OF DERMATOLOGY

The Harvard Medical School Department of Dermatology is recruiting CLINICAL AND RESEARCH FACULTY at all academic levels and for POSTDOCTORAL FELLOWSHIPS. These opportunities are available at the Massachusetts General Hospital as well as at its affiliated institutions: Beth Israel Hospital, Brigham and Women's Hospital, The Children's Hospital, and New England Deaconess Hospital, and includes the Wellman Laboratories of Photomedicine at the Massachusetts General Hospital and also the newly established Cutaneous Biology Research Center which occupies 45,000 square feet of fully equipped laboratory space in a new multidisciplinary research facility in Charlestown, Massachusetts.

A competitive salary/benefits package and an excellent academic environment are available to qualified candidates. The Harvard Medical School Department of Dermatology is a committed Equal Opportunity/Affirmative Action Employer. Minorities, women, handicapped, and veterans are encouraged to apply.

Send inquiries with curriculum vitae to: John A. Parrish, M.D., Chairman, Department of Dermatology, Massachusetts General Hospital, Wellman 2, 50 Blossom Street, Boston, MA 02114.
This important private medical research center in the Paris area, is part of one of the leading pharmaceutical companies in France. Opportunities are available in the Department of Cellular and Molecular Biology.

**Cell biology**

**Ph.D or post-doctoral level**

This is a senior position for a cell biologist with wide-ranging, interests in cell differentiation processes. Candidates should have experience in receptor transduction mechanisms, surface proteins and intracellular signalling systems. Creativity and independence are also required. Please submit CV, réf. 20162, to Média-System, 6 impasse des Deux Cousins, 75489 Paris Cedex 17.

**PROTEIN CHEMIST MOLECULAR BIOLOGIST**

Senior Scientists, Molecular Structure Group

Hoffmann-La Roche, an established leader in the research and development of pharmaceutical products, has two exciting opportunities in our Molecular Structure Group, for Senior Scientists in protein chemistry or molecular biology to perform research leading to new pharmaceutical agents based on the three-dimensional structures of proteins as targets or templates.

You will join a protein chemistry laboratory which will engineer, clone, express and purify proteins for structural determinations via X-ray crystallography and NMR spectroscopy; perform functional and mechanistic studies on the proteins; and collaborate in drug design based on this structural and functional information. Proteins to be investigated include: enzymes, effectors and receptors.

Qualifications include a PhD in Chemistry, Biochemistry or Molecular Biology; experience in either purifying proteins to homogeneity or genetic engineering, cloning and expression of proteins; and knowledge of protein structure and structure-function relationships. Postdoctoral experience and a keen interest in three-dimensional structure and drug design are highly desirable.

We offer a competitive salary, a generous bonus and a comprehensive benefits program. For confidential consideration, please send your resume, indicating present salary (those without this information will not be acknowledged), to: Mrs. Eleanor M. Malone, Staffing and Employee Services, Department EM201-VM, Hoffmann-La Roche Inc., Nutley, New Jersey 07110. We are an equal opportunity employer.

**Cognitive Neuroscience Individual Grants-In-Aid**

The McDonnell-Pew Program in Cognitive Neuroscience is accepting applications for individual grants-in-aid to support research projects and training projects in cognitive neuroscience that are not currently fundable through other channels and from investigators who are not at institutions already funded by an institutional grant from the program. Preference will be given to projects of exceptional merit that require collaboration or interaction between at least two subfields of cognitive neuroscience -- clinical and basic neuroscience, computer science, psychology, linguistics and philosophy. The goal is to encourage broad participation in the development of the field and to facilitate the participation of investigators outside the major centers of cognitive neuroscience. Submissions will be reviewed by a program advisory board chaired by Professor George Miller of Princeton University. Applications must be postmarked on or before the deadline of August 1, 1991. Research support is limited to a maximum of $50,000 per year for up to two years. Indirect costs are to be included in the $50,000 maximum and may not exceed 10% of total salaries and fringe benefits. Research grants are not renewable for a third year. Postdoctoral stipends will be awarded at prevailing rates of the host institution for up to three years. Training grants to support Ph.D. thesis research of graduate students will not be funded. For further information contact: McDonnell-Pew Program in Cognitive Neuroscience, Princeton University, Green Hall 1-N-6, Princeton University, Princeton, New Jersey 08544-1010, 609-258-5014, mns@confidence.princeton.edu.

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FACULTY POSITIONS IN BIOMACROMOLECULAR STRUCTURE

McMaster University is seeking highly qualified scientists to enhance its developing strength in the study of the structure and function of biologically relevant macromolecules. Up to three individuals will be appointed to tenure stream positions in the areas of (i) Protein crystallography, (ii) Enzymology and (iii) Protein engineering and folding as members of a Development Group supported by the Medical Research Council of Canada. The appointees are expected to develop outstanding, independent research programs and promote cooperative scientific interactions as well as to participate in undergraduate and graduate teaching. Appointments will be in the Department of Biochemistry, with cross appointments to other departments as appropriate. McMaster has currently in place, state of the art x-ray diffractometer, electron microscope, NMR and molecular modelling facilities and a number of scientists working in the area of biomacromolecular structure and function. In addition to structural biochemistry, other current strengths are in gene expression, protein targeting, molecular virology, development and oncogenesis and inflammation.

Interested individuals should submit their curriculum vitae, brief statement of current research and future plans and the names of three referees to: Dr. H. P. Ghosh, Chair, Department of Biochemistry, McMaster University, 1200 Main Street West, Hamilton, Ontario L8N 3S5. In accordance with Canadian immigration policy, this advertisement is directed to Canadian citizens or landed immigrants. Appointments subject to MRC approval.
POSITIONS OPEN

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

The Office of Oceanic and Atmospheric Research is seeking a DIRECTOR for the Environmental Research Laboratory, a multidisciplinary research community of NOAA. The director's office is in the Washington, D.C., area. ERL has approximately 1000 employees, a budget of $160 million, and seven research centers across the country. The director will have a key role in developing the long-term research agenda, in recruiting and retaining top-flight research scientists, and in collaborating with other NOAA science programs. Direct applications are not accepted. Individuals interested in this position should contact PAUL J. G. LATHAM, ACTION/EqualOpportunity, NOAA. The closing date for receipt of applications is February 16, 1991.

POSITIONS OPEN

MOLECULAR NEUROBIOLOGY FACULTY POSITION

The Sanders-Brown Center on Aging at the University of Kentucky invites applications for a tenure-track faculty position. The center currently sponsors 30 faculty members from molecular neurobiologists with prime research interest in Alzheimer's disease. The successful candidate will be expected to have a faculty appointment in the appropriate academic department of the College of Medicine. The appointee will be expected to develop his/her own research program and be willing to participate in multidisciplinary research projects. Salary and rank will be commensurate with experience and qualifications. TheSanders-Brown Center is one of the NIA-funded Alzheimer's Disease Research Centers and has a strong tradition of excellence in basic and clinical research in neurodegenerative diseases. Applicants are encouraged to submit a letter of interest, current curriculum vitae, and names of three references. Send to: William R. Markesbery, M.D., Sanders-Brown Center on Aging, University of Kentucky, Lexington, KY 40536. Telephone: 606-258-6040. The University of Kentucky is an Equal Opportunity Employer.

FACULTY POSITION, CLINICAL CHEMISTRY.

The Department of Chemistry at Cleveland State University (CSU) invites applications for tenure-track faculty position at the ASSISTANT PROFESSOR level in clinical chemistry. A Ph.D. degree in clinical chemistry, equivalent experience, and Board eligibility required. Eligibility for certification by the American Board of Clinical Chemists is desired. Responsibilities will include teaching and establishment of a competitive research program. Salary will be commensurate with rank and experience. The Clinical Chemistry Program at Cleveland State University is affiliated with the MetroHealth Medical Center and the Cleveland Clinic Foundation and is COMACC-accredited at the Ph.D. level. The position is available fall 1992. Deadline for applications is 1 November 1991. Send curriculum vitae, three letters of recommendation, and a description of research plans to: Dr. David Anderson, Chair, Clinical Chemistry Search Committee, Department of Chemistry, Cleveland State University, Cleveland, Ohio 44115. Cleveland State University is an Equal Opportunity/Affirmative Action Employer.

THE UNIVERSITY OF MICHIGAN SCHOOL OF DENTISTRY

Full-time TENURE-TRACK POSITION available in Department of Oral Medicine, Pathology, and Surgery at The University of Michigan. Candidate should possess a Ph.D. in a basic science area. A degree in an area of research in which basic knowledge of the cell and molecular biology would be highly desirable. Demonstrated experience in research projects of outside funding and evidence of an independent research program required. Individual should establish collaborative research efforts and encouraged to obtain cross-disciplinary appointment. Rank and salary commensurate with qualifications. Send curriculum vitae, a statement of research interests and goals, and three references by 31 July 1991. Dr. Stephen F. Feinberg, Chair, University of Michigan School of Dentistry Department of Oral Medicine/Pathology/Surgery Ann Arbor, MI 48109-1078

BIOCHEMICAL GENETICST REQUIRED DEPARTMENT OF MEDICAL GENETICS OREGON HEALTH SCIENCES UNIVERSITY

A new FACULTY POSITION is available for a biochemical geneticist with Ph.D. or equivalent and Board certification or eligibility in clinical biochemical genetics. The Metabolic Laboratory has a well-established multidisciplinary base, offering a wide range of clinical and research opportunities in basic, clinical, and applied areas. Positions will include teaching responsibilities in a wide range of areas. Send to: Dr. Robert D. Wells, Director, Institute of Biosciences and Technology, Texas A&M University, College Station, TX 77843-2128.

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The Faculty of Medicine of the Georg-August-University Göttingen and the Deutsches Primatenzentrum (DPZ) invite applications for a joint appointment as University Professor (C4) and Scientific Director, DPZ.

The position includes the full rights and obligations of a professorship according to § 55 of the Niedersächsisches Hochschulgesetz as well as the rights and obligations of the Scientific Director of the DPZ. The position requires a highly qualified scientist with prior experience in primatological research. He/she is also expected to develop and lead a successful programme of research as a head of division at DPZ. The area of research should complement the existing scientific programme of DPZ: fields of behavioural biology, evolutionary biology, population biology, developmental biology and molecular genetics are particularly appropriate.

The position requires extensive experience in scientific management. He/she is responsible, in cooperation with the administrative director for the management and organization of DPZ and coordination of its research programme.

The DPZ performs scientific and medical research on and with nonhuman primates. Other functions include the keeping and breeding of primates for other research institutes. The research programme is currently organized into four Divisions—Reproductive-Biology, Neurobiology, Virology, Immunology and Pathology/Veterinary services.

The appointment as Professor is permanent, while that as Scientific Director of the DPZ is offered for five years, initially, repeated appointments being possible. The conditions of employment follow § 56 Niedersächsisches Hochschulgesetz and the agreement between the Federal State of Lower Saxony, the Georg-August-University Göttingen and the DPZ of 01.08.1990. Details can be explained on request. The applications will also be reviewed by the Board of Supervisors (Aufsichtsrat) of the DPZ, representatives of the DPZ will participate in the negotiations prior to appointment.

Applications with curriculum vitae, a short summary of academic accomplishments including teaching experience, bibliography and a selection of significant publications are requested within six weeks from the publication of this advertisement. They should be addressed to:

Dekan des Fachbereichs Medizin der Georg-August-Universität Göttingen Robert-Koch-Str. 40 W-3400 Göttingen Germany

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**EXCITING RESEARCH OPPORTUNITIES**

Technicon Instruments Corporation, a subsidiary of Miles, Inc, is a pioneer in automated chemical laboratory instrumentation and reagents. We are currently expanding our research effort, and have the following openings.

**SENIOR MOLECULAR BIOLOGISTS**

Successful candidates should have 3-4 years of post-doctoral and 5 or more years of industrial experience in all aspects of recombinant DNA technology and gene expression; cancer marker experience preferred.

**MOLECULAR BIOLOGISTS**

Positions require 3-5 years of post-doctoral research experience in recombinant DNA technology; some experience in immunochemistry desirable. Qualified candidates will clone and sequence genes and participate in expression of relevant genes in bacteria and mammalian culture systems.

**IMMUNOCHEMISTS**

We require a Ph D in biochemistry or biology with 5-7 years of immunodiagnostics experience, cancer marker research experience a must. The incumbents will conduct and supervise research leading to the discovery of novel and proprietary diagnostic tumor markers.

We are exploring new frontiers—join us in this most challenging effort. Our stimulating professional environment, our competitive compensation and benefits package can only enhance your career. For consideration, please send complete CV in confidence to:

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Senior Scientist
ISIS Pharmaceuticals, located in Carlsbad, CA, focuses on antisense oligonucleotide therapeutics. The Company is seeking a Ph.D. level molecular virologist to participate in a research program aimed at elucidating the effects of antisense oligonucleotides on viral processes. Molecular biology and cell culture expertise required. Experience working with HSV, CMV or HIV-1 is desirable. A 2-year post doc research appointment is possible for candidates without post doc work experience.

ISIS offers a competitive salary, excellent benefits and equity participation. Submit cover letter, CV and references to: Human Resources, ISIS Pharmaceuticals, 2280 Faraday Avenue, Carlsbad, CA 92008. Equal Opportunity Employer.
The Division of AIDS
National Institute of Allergy and Infectious Diseases
National Institutes of Health

ASSOCIATE DIRECTOR
Clinical Research Programs

The Associate Director, Clinical Research Program will lead the Medical, Pediatric, Epidemiology, and Community Clinical Research Branches of the Division, and be responsible for setting the Division's agenda in treatment and epidemiology research. The ideal candidate will be a physician and have extensive experience in HIV medicine and clinical trials, a broad scientific perspective, proven leadership abilities, and be BC/BE or similarly credentialed in internal medicine, pediatrics or epidemiology/public health.

For more information send C.V. to and/or call:

Dr. Jack Killen
Deputy Director, Division of AIDS
National Institute of Allergy and Infectious Diseases
Control Data Building, Room 249P
6003 Executive Boulevard
Bethesda, MD 20892
(301) 496-0545

U.S. Citizenship required

NIH is an Equal Opportunity Employer

Agricultural & Food Research Council

An exciting opportunity in neurobiological research

Head of Research

Up to £38,610. AFRC/MRC Neuropathogenesis unit - Edinburgh - U.K.

The Institute for Animal Health seeks a distinguished molecular or cellular biologist to lead and direct an innovative and integrated programme at its Neuropathogenesis Unit in Edinburgh. The Unit is financed jointly by the Agricultural and Food Research Council and the Medical Research Council. The Unit has on-going research programmes on transmissible encephalopathies, including scrapie and bovine spongiform encephalopathy, with research activities ranging across neuropathology, neurobiology, cell biology, biochemistry, genetics and molecular biology.

The post offers many exciting opportunities to extend neurobiological research activities and will be well supported with excellent facilities and resources. The successful candidate will be expected to extend the Unit's programme, develop his/her own neurobiological research programme and encourage the development of further links with research groups in the UK and overseas.

The post is graded at Unified Grade 6. Initial appointment is on a scale from £24,997 to £32,551, but with possible subsequent performance payments to a maximum of £38,610. A higher starting salary may be available for the candidate with special qualifications or experience. The salary scale is under review.

Assistance with removal expenses may be available.

Candidates are encouraged to discuss the post with the Director, Professor John Bourne, and Head of Division of Molecular Biology, Dr Christopher Bostock. Application forms are available from Personnel Officer, AFRC Institute for Animal Health, Compton, Berks RG16 0NN, U.K. (tel: 0635 578411), quoting reference no. UG6/NPU.

INSTITUTE for ANIMAL HEALTH
Good science, useful science.
SmithKline Beecham Pharmaceuticals, a world leader in pharmaceutical research, is expanding the high eucaryotic section of its Gene Expression Sciences Department.

The research efforts of this section focus on maximizing heterologous gene expression in mammalian and insect cell systems by gaining an understanding of transcriptional, translational and post-translational regulatory elements. In addition, the role of cellular physiology in optimizing gene expression and product quality is also studied. The technologies developed are then applied to the production of therapeutic proteins, as well as to molecular targets, in an effort which is highly integrated with all areas of R&D.

We are looking for candidates for the following positions:

ASSOCIATE/ASSISTANT DIRECTOR

Qualified candidates must have a Ph.D. in Molecular Genetics, Cell Biology, Biochemistry or a related field and at least six years of post graduate work experience. Candidates must also have a proven record of research in the field of gene expression in eucaryotic systems as exemplified by publications and/or patents.

SENIOR EUCARYOTIC SYSTEMS

MOLECULAR BIOLOGIST

Successful candidate will have a Ph.D. in one of the aforementioned disciplines, with a minimum of two years of post graduate experience. Candidates must have expertise in the area of gene expression in eucaryotic systems. Ability to conduct basic research directed at improving existing and developing new expression systems is also required.

EUCARYOTIC GENE EXPRESSION

RESEARCH SCIENTIST

Selected candidates will have a B.S. and/or M.S. in one of the aforementioned disciplines, with a minimum of one to two years of experience in tissue culture and recombinant DNA technology.

Our state-of-the-art research facilities are located in suburban Philadelphia, near Valley Forge, PA. We offer a competitive compensation/benefits/relocation package, as well as a stimulating work environment in which to grow and excel. For confidential consideration, please submit your C.V. and the names of three references to: N. Hasson, Employment Administrator, #H0174, SmithKline Beecham-Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.

SmithKline Beecham
Pharmaceuticals

This important private medical research center in the Paris area is part of one of the leading pharmaceutical companies in France. Opportunities are available in the Department of the Cellular and Molecular Biology.

SENIOR RESEARCHERS

IN BIOLOGY/BIOCHEMISTRY

Ph.D or post-doctoral level

The successful candidates have a good experience in receptor cloning and be creative and self-motivated.

Please submit CV, réf. 20220, to Média-System, 6 impasse des Deux Cousins, 75849 Paris Cedex 17.

We'll Help You Build A New Lab

Let the free Science product information service put you in touch with the vendors whose products you will need.

Simply write us a letter stating the specifics about your proposed lab and the instruments and supplies you need. We will do the rest. Write to:

SCIENCE Magazine
New Lab Service Department
1515 Broadway
New York, NY 10036
**Metabolism Chemist**

Ricerca, Inc. is currently seeking a Metabolism Chemist in its expanding Toxicology/Metabolism Department. The qualified individual will have a Ph.D. in Biochemistry, Biochemical Toxicology or related discipline with experience in conducting mammalian metabolism studies for the safety evaluations of chemicals. The successful candidate will supervise, conduct and report studies to determine absorption, distribution, excretions and metabolisms of xenobiotics.

Qualified applicants are encouraged to submit resume to: Human Resources Department, Ricerca, Inc., P.O. Box 1000, Painesville, OH 44077. Equal opportunity employer, m/f/hv.

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**Leadership Excellence Innovation**

The Solar Energy Research Institute (SERI), located in Golden, Colorado, west of Denver, is the nation's primary federal laboratory for the study of renewable energy technologies and solar energy. Currently, we have the following opportunities:

**Associate Biochemical Engineer/Scientist**

Responsible for performing experimental research on fermentation technologies and gathering accurate experimental data on process performance.

Qualifications include a BS or MS in Chemical Engineering, Biochemical Engineering, Microbiology, Biochemistry, or related biological engineering or science field. Experience with shake flask and bench scale fermentation process and associated biochemical assay techniques are also required. Familiarity with fermentation instrumentation and with PC's and PC-based data acquisition techniques preferred. Ref. # E2320-796

**Senior Biochemical Engineer**

Supervise and perform fermentation research to define configurations and improve processes for production of enzymes, fuels, chemicals, and other valuable products from biomass. Will also design bench and laboratory experiments, oversee the execution, and supervise the analysis of data and other information. Other responsibilities include modeling operations studied on fundamental level to develop insight into operation and aid in optimization, and making recommendations for improvements in process steps through knowledge gained from such studies. Requires a BS degree in Chemical or Biochemical Engineering, significant experience in providing technical leadership in bioprocessing and fermentation in addition to experience and training in modeling fermentations. Experience in enzyme production and PhD plus 7 years experience would be preferred. Ref. # E2320-804

**Senior Molecular Biologist**

Supervise cloning and molecular genetics research activities to improve organisms and enzymes for conversion of biomass to fuels, chemicals and materials. This individual will also design laboratory experiments, oversee their execution and supervise analysis of data and other information. This position will be responsible for maintaining a state-of-the-art cloning laboratory and establishing an interactive role with the research community.

Qualifications include demonstrated knowledge and "hands-on" experience with modern techniques in recombinant technology, including a specialty in the expression of recombinant enzymes from rapidly growing bacteria, such as E. coli and Bacillus sp. Candidates must also train scientists in the application of state-of-the-art technology in this field. A PhD in Molecular Biology, Biochemistry, or Microbiology plus a strong research publication record is required. Ref. # E2320-775

**Process Engineer**

Perform engineering analyses of processes for the production of fuels, chemicals, and materials from renewable resources. Construct material and energy balances for promising options and estimate capital and operating costs. Perform sensitivity analyses to identify opportunities for research to make processes economical and to recommend research directions and programs. Provide technical advice to researchers and decision makers.

Requirements include a BS or MS in Chemical or Biochemical Engineering and 2+ years industrial experience in process evaluations and cost estimating or more than 5 years experience in biochemical engineering. Excellent written presentation and writing skills are highly desirable. Ref. # E2320-813

**Senior Project Coordinator**

Provide leadership in planning, implementing, and carrying out research projects for the production of ethanol from biomass. Activities include negotiating and planning R&D direction with clients, defining R&D tasks with in-house researchers and subcontractors, and insuring successful and timely completion of R&D activities. Opportunity to direct and carry out own research project as well.

Requires a MS or PhD in Biochemistry or Molecular Biology plus knowledge of chemistry or an MS or PhD in Chemical or Biochemical Engineering. Excellent written presentation and writing skills are essential. Five-to-ten years of experience in performance of biotechnology R&D is also desired; experience in technical project management is preferred but not required. Ref. # E2320-812

**Staff Chemical Engineer**

Supervise and perform research to improve knowledge and technology, define configurations, and evaluate feedstocks for pretreatment of biomass to facilitate production of enzymes, fuels, chemicals, and other valuable products. Design bench and laboratory experiments, supervise the execution, and supervise the analysis of data and other information. Make recommendations for improvements in model and model operations studied.

Qualifications include a MS degree in Chemical or Biochemical Engineering, and experience in providing technical leadership in bioprocessing and the pretreatment of cellulosic biomass or related technologies. Knowledge and training in modeling fermentations is also important. A PhD plus 5-7 years experience in pretreatment research and modeling are preferred. Ref. # E2320-797

We offer an excellent compensation and benefit program. For immediate consideration, please send your resume, indicating appropriate reference number, to Human Resources Office, Solar Energy Research Institute, 1617 Cole Blvd., Golden, CO 80401.

Women and minorities are encouraged to apply. We are an equal opportunity employer.

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**VETERINARY EXPERIMENTAL PATHOLOGIST**

The Inhalation Toxicology Research Institute in Albuquerque, New Mexico seeks a Veterinary Experimental Pathologist to conduct studies on the mechanisms of respiratory tract neoplasia using techniques of molecular biology. D.V.M. and Ph.D. degrees in experimental pathology, or the equivalent, plus two or more years of laboratory experience in the field of molecular biology required. Experience with studies of the molecular basis for carcinogenesis must be demonstrated by peer-reviewed publications (focus on respiratory tract preferred). Certification or eligibility for certification by the American College of Veterinary Pathology necessary. Good written and verbal communications skills and ability to work as part of a multidisciplinary team required. U.S. citizenship or Permanent Residency necessary. Please submit curriculum vitae to: Human Resources Unit, Job No. 111, Inhalation Toxicology Research Institute, P.O. Box 5890, Albuquerque, NM 87195. (505) 844-9431. An Equal Opportunity/Affirmative Action Employer.
BIOCHEMISTRY/MOLECULAR BIOLOGY UNIVERSITY OF MICHIGAN ANN ARBOR

The Department of Biochemistry and Molecular Biology at the University of Michigan offers a Postdoctoral position in the area of molecular and cellular biology. This is a 12-month, tenure-track position that will be filled by September 1991. The position will be within the laboratory of Dr. Robert A. Tilley, Department of Pathology (Box 214) or Dr. Thomas E. Thompson, Department of Biochemistry (Box 7541). The University of Michigan, 1202 Science Center, Ann Arbor, MI 48109. The University of Virginia is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Position available immediately to participate in a collaborative study of glycoprotein organization in blayers and biological membranes. Biophysical, biochemical, and electron microscopy techniques are used. Send curriculum vitae and names of three references to: Dr. Robert R. Granados, Boyce Thompson Institute, Cornell University, Ithaca, NY 14853. FAX: 607-254-1242. Equal Opportunity Employer.


POSTDOCTORAL POSITION. Position available immediately to participate in a collaborative study of glycoprotein organization in blayers and biological membranes. Biophysical, biochemical, and electron microscopy techniques are used. Send curriculum vitae and names of three references to: Dr. Robert R. Granados, Boyce Thompson Institute, Cornell University, Ithaca, NY 14853. FAX: 607-254-1242. Equal Opportunity Employer.


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We are in the process of expanding our pharmaceutical Research Center located in the South of France (Castres). The Research Center is aimed at the discovery of clinically efficacious drugs for the treatment of CARDIOVASCULAR DISEASE, CANCER, and CENTRAL NERVOUS SYSTEM disorders. We are seeking highly qualified staff for creating and managing three new Research Divisions.

TWO DIRECTORS MEDICINAL CHEMISTRY DIVISIONS

Applicants should have a training in organic chemistry at the Ph. D level and at least 5 years of post-doctoral experience, including drug discovery work in the pharmaceutical industry.

ONE DIRECTOR CARDIOVASCULAR DISEASE DIVISION

Applicants should have a training in a relevant biological discipline at the Ph. D level and at least 5 years of post-doctoral experience in cardiovascular pharmacology, including drug discovery work in the pharmaceutical industry.

Furthermore, a large number of staff research positions are available in the following areas:

MEDICINAL CHEMISTRY, CARDIOVASCULAR PHARMACOLOGY, BIOCHEMICAL CANCER RESEARCH, BEHAVIORAL PHARMACOLOGY, NEUROBIOCHEMISTRY, NEUROANATOMY, ANALYTICAL CHEMISTRY, RESEARCH DATA PROCESSING

Please send your CV and list of publications under ref. CR/N to PIERRE FABRE SA Direction des Ressources Humaines - 11, rue Theron Perle - 81106 CASTRES cedex - FRANCE.

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
EXCITING OPPORTUNITIES IN RESEARCH MANAGEMENT

The Directorate of Life Sciences, Air Force Office of Scientific Research is seeking experimental biologists and psychologists for 1-2 year positions as program advisors under the Intergovernmental Personnel Act to assist in developing and managing basic research programs in the life sciences. The Directorate of Life Sciences currently manages ongoing basic research programs in neuroscience, chronobiology, sensory and perceptual systems, cognitive science, toxicology and environmental science. In addition to these programs, we are interested in exploring new program areas within the life sciences, as well as, multidisciplinary programs forging links with other areas such as chemistry, physics, mathematics, and electronics.

Candidates for these positions must have a Ph.D. in an appropriate area of biological or psychological science, have experience in conducting independent research and experience or at least a strong interest in research management and shaping broad national basic research programs to address Air Force research needs. Individuals would be appointed under the Intergovernmental Personnel Act, and thus must currently be employed by an academic institution, another government agency, or certain nonprofit organizations. Location of assignment is Bolling Air Force Base, Washington, DC.

The Air Force Office of Scientific Research (AFOSR) is the Air Force's single manager for basic research. An extramural program of grants or contracts, primarily to academic institutions, comprises 70% of the research effort with another 30% going to support basic research programs in Air Force laboratories.

Please send curriculum vitae to: Dr. William O. Berry
Director of Life Sciences
AFOSR/NL
Bolling AFB, DC 20332-6448
Tel: (202) 767-5021
CLINICAL TRIALS BRANCH CHIEF
NATIONAL INSTITUTE ON DRUG ABUSE

The Medications Development Division, National Institute on Drug Abuse, Alcohol, Drug Abuse and Mental Health Administration, Rockville, Maryland, is recruiting for a Clinical Trials Branch Chief. Responsibility includes leading and directing a comprehensive program of Clinical Pharmacology and Phase II and III clinical development of promising treatment agents for opiate and cocaine dependence. GM-15 salary range is $61,643–$80,138 ($84,248 for physicians). Physicians may be eligible for Physicians Comparability Allowance of up to $20,000. Relocation expenses may be paid. Full benefit package offered includes retirement, health and life insurance, thrift plan, and annual and sick leave.

Requirements: M.D. or D.O. (specialties in neurology, psychiatry, or internal medicine—infectious diseases are preferred) or a Ph.D. or equivalent training/experience. Experience in new drug development or the FDA drug approval process desired. U.S. citizenship required.

Submit an SF-171 and/or CV referencing ADM 91-65B (SM) to Morgan DuBrow, NIDA, 5600 Fishers Lane, Room 10-21, Rockville, MD 20857. Must be postmarked by July 16, 1991.

Additional openings for:
Medical Officer/Clinical Monitor
Senior Regulatory Affairs Specialist
Technical Info Specialist/Writer
Clinical Research Associates
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For more information, contact Ms. Segal, (301) 443-6270

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Ph.D. SCIENTIST

PANLABS is expanding its U.S. laboratory staff. We have a position available for a scientist with a demonstrated record of scientific innovation and independence.

Opportunity for a highly motivated biochemist with a broad background to lead a team working to improve fermentation processes for important pharmaceuticals. Candidates must have extensive experience in the biochemistry of secondary metabolism, including expertise with isotopic tracer analyses, enzyme purification and characterization, and isolation and structure determination of small molecules. The position involves work at the bench, supervision of other scientists and collaboration with molecular biologists and chemists.

Requirements: Ph.D. postdoctoral experience preferred, documented experimental, communication and supervisory skills.

PANLABS is a growing U.S. based international company that has provided R & D services to pharmaceutical companies and the fermentation industry worldwide for 20 years. Located in the high tech corridor north of Seattle, PANLABS offers competitive salaries and benefits. Submit CV with names and phone numbers of three references to:

PANLABS, INC.
Attn: Human Resources Manager
Ph.D. Scientist (Position #30)
11804 North Creek Parkway South
Bothell, WA 98011-8805

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MOLECULAR BIOLOGY

QIAGEN INC. is a fast growing Los Angeles area company, committed to excellence in the development and marketing of unique and innovative products for molecular biology. We are seeking highly motivated and talented individuals to join our expanding sales team.

Eastern Regional Sales Manager
Applicants should have a BS/MS degree in molecular biology or related fields and 2+ years of lab experience in molecular biology. 3-5 years sales experience is required (in molecular biology consumables preferred). Will be responsible for six sales reps in the Eastern region.

Technical Sales Representatives
Applicants should have a BS/MS degree in molecular biology. Prior sales experience is beneficial, but not required. Sales territories are available in the Northeast, Southwest, Midwest and Northwest.

We offer competitive salaries, benefits including relocation assistance and a challenging, high growth environment. For immediate consideration, please send a resume, salary history and reference names to:

QIAGEN, INC., Human Resources,
9259 Eton Avenue, Chatsworth, CA 91311
(Phone: 800-426-8157, Fax 818-718-2056).

RESEARCH ASSOCIATES
BIOTECHNOLOGY

Amgen is a leader in the applications of molecular and cellular biology to the development of human therapeutics. Our successes in the development of Epogen® (recombinant human erythropoietin) and Neupogen® (recombinant human granulocyte colony stimulating factor) have placed us firmly at the forefront of the biotechnology industry. As a result of these successes and our continuing commitment to research, we are actively seeking several Research Associates.

MOLECULAR BIOLOGY
Cellular Growth Programs
Dept. #583

The persons selected will contribute to new and ongoing programs leading the cloning and expression of novel cellular growth factors. Applicants must have a BS or MS in Molecular Biology or a related discipline and a minimum of two years of extensive molecular biology experience including gene cloning, PCR, library construction and screening. Experience in mammalian cell culture required for some positions, but not all. Familiarity with basic protein analysis techniques, including SDS PAGE and Western Blotting, is also desirable.

PROTEIN CHEMISTRY
Dept. #4405R

This position requires a Master’s degree in Chemistry, Biochemistry, or a related field. Experience in electrophoresis, Radio Immune Assays, HPLC or FPLC chromatography separation methods, protein modification, and radio labeling of proteins is essential. Good computer and communication skills are needed.

Amgen offers a stimulating and challenging environment on the leading edge of biotechnology as well as an attractive location among the Santa Monica coastal mountains. Our compensation and relocation packages reflect Amgen’s commitment to attract and retain the best scientific talent possible. If you have the necessary skills and would like to be a part of a company that places its highest priority on its human resources, please send a resume or CV, in confidence, to:

AMGEN, INC.
Recruitment, Dept. # (please specify)
Amgen Center
Thousand Oaks
CA 91320-1789

Equal Opportunity Employer
POSTDOCTORAL FELLOW. Immediate opening available. Applicants should have very strong cell biology background. Our laboratory is interested in the control of the cell cycle, and the effects of UV light and mechanisms of DNA repair. Experience in standard molecular genetics, cell culture, use of DNA sequencing instrumentation, and immunofluorescence is required. Send curriculum vitae and names of three references to: Dr. Howard S. Weinberg, Laboratory of Cell Biology, National Cancer Institute, National Institutes of Health, Bethesda, MD 20892. An Equal Opportunity Employer.

AFFIRMATIVE ACTION APPLICANTS WELCOME.

POSTDOCTORAL RESEARCH FELLOWSHIPS FROM JUGENDSCHUTZ are invited for POSTDOCTORAL RESEARCH FELLOWSHIPS from Jugendsschutz (Ph.D., M.D. or both). Training will be in molecular and cellular biology, targeted to pivotal problems in medical science. A focus of research is the effects of UV lights, cell cycle, attachment membrane, and membrane receptors. Postdoctoral trainees will have access to all the resources of the Bauer Institute, including the use of the University of California, the University of Texas Science Center at San Antonio (UTS/SCSA), and Dr. Anthony J. Valente, Department of Pathology, University of Texas Science Center, San Antonio. Contact the University of Texas Science Center, San Antonio. San Antonio, TX 78284-7750. FAX: 512-567-3105. UTHSCSA is an Equal Opportunity Employer and minority candidates are encouraged to apply.

POSTDOCTORAL FELLOW: MOLECULAR AND DEVELOPMENTAL NEUROBIOLOGY/NEUROSCIENCE AND NEURAL TRANSPLANTATION

The Molecular and Developmental Neurobiology Program at the University of Texas Health Science Center at San Antonio offers a postdoctoral position in the Department of Pathology, under the direction of Dr. Anthony J. Valente. The successful candidate will work in a collaborative environment with several other laboratories within the Department of Pathology. The postdoctoral fellow will be involved in the study and molecular manipulation of neuronal cell culture systems, especially evaluating their potential in cell replacement or augmentation of the CNS. Salary and benefit, depending upon level of prior training and experience. The appointment is for 2 years. Applicants should send curriculum vitae, names and addresses of three references, and a letter of research interests to: S. Sprydan Arantavisi-Takosan, PhD., Program Director, Molecular and Developmental Neurobiology Program, Room 209, 256 East Commerce, San Antonio, TX 78284-7750. (512) 785-3105.

POSTDOCTORAL FELLOW HARBOR MEDICAL SCHOOL NEW ENGLAND REGIONAL PRIMATE RESEARCH CENTER DEPARTMENT OF PATHOLOGY

Position available to study the pathogenesis of infection with HIV. Our aims are to understand the effect of lentiviral infection of tissue macrophages. Our approaches include the study of (i) functional parameters of infective virions, and (ii) mechanisms responsible for the control of SIV replication within stem cell macrophages. Familiarity with mammalian cell culture, molecular biology, and immunobiology is essential. This position is located 25 miles from Boston/Cambridge in Southborough, Massachusetts. Successful applicant will have appointment within the Department of Pathology, Harbor Medical School. To apply, send curriculum vitae, list of three references, and research interests or experience to: Lee, Acting Dean, Howard J. Medical School New England Regional Primate Research Center One Pine Hill Drive, P.O. Box 9102 Southborough, MA 01772-9102

POSITIONS OPEN

POSSIBLE FUTURE IN neutralizing antibodies to infection is of great importance in evaluating vaccine response. Our laboratory is interested in the control of the cell cycle, and the effects of UV light and mechanisms of DNA repair. Experience in standard molecular genetics, cell culture, use of DNA sequencing instrumentation, and immunofluorescence is required. Send curriculum vitae and names of three references to: Dr. Howard S. Weinberg, Laboratory of Cell Biology, National Cancer Institute, National Institutes of Health, Bethesda, MD 20892. An Equal Opportunity Employer.

AMVAX, Inc., a human pediatric vaccine re- search, development, and manufacturing company, has position openings.

PROTEIN/CARBOHYDRATE CHEMISTRY

We seek both Ph.D. and B.S./M.S. level protein/carbohydrate chemists with degrees in biochemistry/chemistry. The individuals will be involved in basic protein/carbohydrate chemistry, the individuals will be involved in basic protein/carbohydrate chemistry, in cell culture, protein/polysaccharide conjugation, and conjugation reactions leading to new vaccine development. Several years of experience in basic protein/carbohydrate chemistry is essential.

IMMUNOLOGY

This position requires a Ph.D. in immunology or related field with a minimum of 2 years of postdoctoral experience. The successful candidate will design and establish a research program to study the immune response to protein/polysaccharide vaccines. The candidate will work on a comprehensive program to develop basic immunological techniques and microbiology is essential. Equal Opportunity Employer. We offer highly competitive salaries and benefits. Send curriculum vitae and names of three references to: Lynne L. Levitsky, M.D., Shriners Burns Institute, 51 Blossom Street, Boston, MA 02114. Women and minorities are encouraged to apply.

RESEARCH SCIENTIST. Ph.D. in immunology. Requiring expertise in DNA sequencing, PCR, dot blot hybridization, Northern hybridization blots, RNA, DNA isolation and purification, experience with integrins and targeting of monoclonal antibody conjugates. Salary: $25,000 to $30,000. Send resume in duplicate (with job order number) to: Ms. P. Oldenburg, New York State Job Service, 66 West Huron Street, Buffalo, NY 14202. Job code number: 192-32.

RESEARCH ASSOCIATE

The Pediatric Endocrine Unit at the Shriners Burns Institute, Massachusetts General Hospital, and the Harvard Medical School, is seeking applicants for a research associate to conduct studies of intermediary metabolism in isolated hepatocytes and adipocytes. Knowledge of tissue culture, cell isolation techniques required. Previous experience with studies of lipogenesis, isotopic tracer techniques preferred. Ph.D. degree required. Send curriculum vitae and references to: L. Jeffries, M.D., Shriners Burns Institute, 51 Blossom Street, Boston, MA 02114.
THE KEYSSTONE SYMPOSIA ON MOLECULAR AND CELLULAR BIOLOGY

The Executive Committee of the Keystone Symposium on Molecular and Cellular Biology has announced it will undertake an executive search for a new director to succeed Dr. C. Frederick Fox, founder and Director of the internationally renowned organization. Dr. Fox, after twenty illustrious years in establishing and making these symposia a cornerstone of the American Biomedical Enterprise, has decided to expend his energies in other directions and has agreed to help the new director in the transition.

The Symposium has presented cutting-edge scientist exchange across the spectrum of molecular and cellular biology ranging from biomedical to agricultural research in some thirty meetings a year, involving upwards of 7,000 participants from academia, industry and federal research facilities. Approximately 20% of attendance is from Europe and Asia.

The Executive Committee believes that the Symposium, whose headquarters will be moved from Los Angeles to Keystone, Colorado in June 1991, will be served best by a Director who would probably be based at the Colorado premises, and who can devote a significant portion of his or her energies to the internationally recognized series of scientific exchanges. The organization has now matured to the level of excellence and recognition, with systems and management structures in place, that the Director's position can be turned over to a successor with qualifications matching the distinction of the enterprise.

Recommendations of candidates and applications for the Director’s position should be sent to Robert W. Craig, President, The Keystone Center, P.O. Box 606, Keystone, Colorado 80435.

The search for the Symposium Director will be chaired by Dr. Russell Ross, Professor and Chairman, Department of Pathology, University of Washington School of Medicine. He will be joined by the Executive Committee of the Symposia and other distinguished members of the community in biological research.

The Executive Committee:

Ralph A. Bradshaw, Ph.D. Pedro Cuatrecasas, M.D.
Ronald E. Cape, Ph.D. C. Fred Fox, Ph.D.
Ralph E. Christoffersen, Ph.D. Curtis Harris, M.D.
Robert W. Craig Joan D. Manley

Search Committee Members:

Robert W. Craig Dale L. Oxender, Ph.D.
Dennis D. Cunningham, Ph.D. Russell Ross, Ph.D. (Chairman)
C. Fred Fox, Ph.D. Donald F. Steiner, M.D.
Joan D. Manley (ex-officio, Executive Committee)

The Keystone Symposia/Keystone Center is a not for profit 501(c) (3) organization and an Equal Opportunity Affirmative Action Employer.

RESEARCH and DEVELOPMENT OPPORTUNITIES

Technicon Instruments Corporation is a pioneer in the field of automated analytical instrumentation. Today our systems are in hospitals and laboratories throughout the world. Joining us means challenging participation in the development of new technology. Currently we have positions available for highly motivated professionals.

Product Support Chemists

Responsibilities involve working in diagnostic reagent troubleshooting and improvements on automated clinical chemistry analyzers. MS in Chemistry/Biology/Biochemistry plus 1-3 years relevant experience is required.

Method Development Chemists

Responsibilities will include method selection, demonstration of feasibility, and reagent optimization for automated clinical chemistry analyzers. Ph.D. in Chemistry/Biology/Biochemistry plus 1-3 years relevant experience is required.

Our headquarters, in suburban Westchester County, NY, offers a work environment conducive to professional growth, along with competitive salaries and a comprehensive benefits program.

Please send CV and/or resume in confidence to: MANAGER HUMAN RESOURCES—R&D
Technicon Instruments Corporation 511 Benedict Avenue, Tarrytown, NY 10591
An Equal Opportunity Employer M/F/H/V

THE KEYSTONE SYMPOSIA ON MOLECULAR AND CELLULAR BIOLOGY

Due to the popularity of Science's recent three-part series by Robert Pool examining the debate over the possible biological effects of electromagnetic fields, we put the articles together in one convenient and comprehensive reprint booklet. The first article looks at the epidemiological evidence for a link between electromagnetic fields and cancer. The second article deals with cell and animal studies, and the third examines policy questions and the politics behind the research.

To order copies of this booklet, complete the coupon below and send your check, payable to AAAS. All orders must be prepaid.

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MAIL TO: Corinne Harris • AAAS/Reprints 1333 H Street, NW • Washington, DC 20005
POSITIONS OPEN

RESEARCH ASSOCIATE. For university in central Ohio. Participates in the general research activities in clinical pharmacology; collects and analyzes blood and other biological samples; monitors drug studies for protocol adherence; studies, analyzes, and evaluates data using computer analysis; performs physical exams and evaluates side effects of subjects with the supervision of a medical doctor; participates in collecting and interpreting the data for submission to sponsors, screens and arranges supplies and equipment. No experience required. Must have a B.S. or equivalent in microbiology, biochemistry, pharmacology, pathology or microbiology, and at least 1 year of clinical or research experience in monitoring drug metabolism in biological fluids of human subjects; performing venipunctures; operating and analyzing electrocardiograms; performing physical exams; and the supervision of a medical doctor. Experience can be gained concurrent with the degree. Monday to Friday, 8 a.m. to 5 p.m. Salary: $20,800 per year. Must have proof of legal authority to work permanently in the United States. Send letter to: S. Holton, JO# 1260277, Office of Employment Services, P.O. Box 1614, Columbus, OH 43216.

Full-time position available for RESEARCH ASSOCIATE, for research in collaboration with others for projects. Make detailed observations, analyze data, and interpret results. Exercise technical discretion in the design, execution, and interpretation of experiments that contribute to scientific strategies. Prepare technical reports, summaries, protocols, and quantitative analyses. Maintain familiarity with current literature on the subject and contribute within scientific discipline through innovative research. Requirements: B.S. and M.S. in cell and molecular biology, 3 years of experience in position offered or as a research associate, ability to conduct biologic research and specifically electrotransformation of prokaryotes. Thorough knowledge in the operation of the following equipment: Beckman Eppendorf microfuge, Beckman ultracentrifuge, Beckman spectroelectrophoresis, Bio-Rad microfuge, and biosynthesis of insecticidal proteins. Hours and salary: Monday to Friday, 7:00 a.m. to 4:00 p.m.; $31,400 per year. Please send two copies of resume to: J. O. #5156, Commonwealth of Massachusetts Division of Employment and Training, Special Programs, Second Floor, 19 Stanfield Street, Boston, MA 02114.

RESEARCH ASSISTANT. Full time, to develop and manage monoclonal antibody production facility. Experience in animal tissue culture, production of hybridomas, and antisera production techniques mandatory. Ability to develop ELISA assays required. Management skills are critical. Interest in developing collaborative investigative strategies. Send letter of interest, curriculum vitae, transcript of all academic records, and three letters of reference to: Dr. Russel Meints, Center for Gene Research and Biotechnology, Science Center, Eugene, OR 97403. Application deadline is 31 July 1991. OSU is an Affirmative Action/Equal Employment Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973. OSU has a policy of being responsive to the needs of dual-career couples.

ENVIRONMENTAL CHEMIST, GS-11/12 ($31,116 to $37,294), at the U.S. Department of Commerce/NOAA Great Lakes Environmental Research Laboratory (GLERL) in Ann Arbor, Michigan. Successful candidate will conduct independent field and laboratory investigations as part of GLERL's Pollutant Effects Program to study the effects of the fate, transport, and effects of toxic organic contaminants in aquatic systems. Ph.D. or equivalent experience in environmental or analytical chemistry or environmental toxicology with a strong analytical background, and experience with aquatic research required. U.S. citizenship required. Application information and instructions to: P.O. Box 746, Port Huron, MI 48060. Monday to Friday, 8 a.m. to 4 p.m. CDT. Technical information: Dr. Peter Landrum, 313-668-2035, Monday to Friday, 8 a.m. to 5 p.m. EDT. An Equal Opportunity Employer.

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POSITIONS OPEN

MOLECULAR BIOLOGIST

Neurol, a biotechnology company, is involved in cloning ion channel receptors. We are seeking a highly motivated, dynamic molecular biologist to join our team. Requires a Ph.D. in molecular biology with 1 to 2 years of experience. Experience in cDNA library preparation and isolation of genes will be advantageous. We offer high-quality competitive salaries and comprehensive benefits including stock option. Send resume, letter of application, and a recent publication to: MP-1, 3760 Haven Avenue, Menlo Park, CA 94025.

SENIOR SCIENTIST. Biotechnology firm with research facilities on medical center campus has position available beginning 1 August 1991. Duties include integrated design and implementation of high-volume, high-throughput automation to improve efficiency and increase productivity of biotechnology section. Responsibilities include coordination between medical center staff and company's product development department, technical support for cell culture processes, design and development of new cell culture equipment, and writing of articles, grants, and proposals. Experience in endotoxoid cell culture highly desirable. In depth knowledge of, or experience with, growth factors, molecular biology techniques, and biotechnology required. The position offers the advantages of a small company with the active research environment of a large medical center campus. Ph.D. in biology, biochemistry, cell biology, or related fields. Salary: $47,000 per year. Please send two copies of resume to: B. Koelle, Department of Neurology, Division of Neurosciences, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.

SCIENTIST

Pharmaceutical research and development company has openings for a scientist to be responsible for designing and implementing gene programs in transcription regulation utilizing an array of advanced protein engineering, biochemical, and computational technologies in an integrated program to identify and synthesize small organic compounds to treat immunodysregulatory disorders. Must have Ph.D. in biochemistry plus 2 years of postdoctoral research experience with protein purification and characterization using automated chromatographic instruments. Other specific requirements include: experience with gene expression and regulation utilizing in vivo DNA transformation and in vitro transcription approaches; expertise with DNA cloning, sequencing, and mutagenesis; demonstrated ability with organic synthesis; strong background in pharmacokinetics and pharmacology; and expertise in enzymology. Salary is $52,000 to $59,000 for a 40-hour work week. Send resume to: Catherine Beecrohn, Research Administrator and Executive Assistant to the President, Vertex Pharmaceuticals, Inc., 40 Allston Street, Cambridge, MA 02139-4211. Equal Opportunity Employer.

SCIENTIST, PROTEIN CHEMISTRY

We are seeking a scientist with a Ph.D. in cell biology, biochemistry, or immunology with several years of postdoctoral experience. Send letter of interest, curriculum vitae, and a recent publication to: Dr. L. M. M. Davis, Department of Immunology, Box 271, National Institutes of Health, Bldg. 10, Room 5C-85, Bethesda, MD 20892. Salary: $31,400 per year. Send resume, letter of interest, and three letters of reference to: Dr. Russel Meints, Center for Gene Research and Biotechnology, 3096 Cordley Hall, Oregon State University, Corvallis, OR 97331-2906. Application deadline is 31 July 1991. OSU is an Affirmative Action/Equal Employment Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973. OSU has a policy of being responsive to the needs of dual-career couples.

METEOR

THE GEORGE B. KOELLE SYMPOSIUM ON THE CHOLINERGIC SYNAPSE

To be held 11 October 1991 at the University of Pennsylvania School of Medicine (specific lecture hall to be announced with confirmed registration), Philadelphia, Pennsylvania, beginning 8:30 a.m. An international group of speakers will address developmental aspects, electrophysiology, pharmacology, biochemistry, and molecular genetics of the cholinergic synapse.

For further information, write or call: Symposium Co-Chairmen, Society for Neuroscience, 2510 Pennsylvania Avenue, Washington, D.C. 20005.

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MARKETPLACE

SCIENCE, VOL. 252

POSITIONS OPEN

ASSOCIATE SCIENTIST. "Beam-line physicist" for an assigned area. Duties include design, installation, commissioning, maintenance, and upgrade of equipment required to provide high-energy proton beam to an experimental area as required by experiment specification. Conduct own research in high-energy physics as collaborator on an experiment. Salary: $47,000 per year. Hours: 8:30 a.m. to 5:00 p.m. (40 hours per week).

Applicants must hold a Ph.D. in high energy or nuclear physics and have 3 years of experience in this position or equivalent 3 years of postdoctoral research experience in high-energy physics experimentation which includes design, construction, commissioning, and operation of experimental equipment and data analysis. Applicants must have proof of legal authority to work permanently in the United States.

Applications should be directed to: Illinois Department of Employment Security, 401 South State Street—Suite 3, Chicago, IL 60605. Attention: Joan Sykstus, Ref. # W-IL-2487S. No calls. An employer-paid ad.

PRINCIPAL MICROBIOLOGIST. Salary: $4653 to $5779 per month. Requires degree with 5 to 7 years of experience in design, evaluation, and analysis of limnological and other biological data using computers. M.S. in limnology or aquatic sciences preferred. Will do limnological data analysis; design and evaluate tests and control strategies for water quality; oversee compliance monitoring program; evaluate compliance/microbiological regulations and perform design studies. For consideration resume must include Job Code 91-43 RAG (RT) and be submitted to: The Metropolitan Water District of Southern California, Personnel Department 91-43 RAG (POS), P.O. Box 54153, Los Angeles, CA 90054. Equal Opportunity Employer, Male/female/veteran/handicapped.
Congratulations to

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1991 SANDOZ PRIZE FOR GERONTOLOGICAL RESEARCH

by the Jury of the International Association of Gerontology

With this prize, the IAG honors distinguished personalities for their achievements in gerontological research and leadership in activities for the betterment of life of elderly fellow citizens in all parts of the world.
Latest LSC technology cuts sample and cocktail costs; increases throughput

In the past, liquid scintillation counting used traditional technology to overcome background noise. Now, there’s a new, more sensitive technology – TR-LSC or Time-Resolved Liquid Scintillation Counting – that reduces background noise by an additional 30%–40%, and more. This new patented technology is available only in Packard’s Tri-Carb® liquid scintillation analyzers.

Originally developed for extremely low level counting, TR-LSC technology has now been applied to a broad range of applications. While these don’t always require high sensitivity, additional benefits have been realized. By increasing sensitivity, TR-LSC reduces sample and cocktail consumption while shortening the time required for accurate counts. The benefits? Lower cocktail costs, lower disposal costs, and increased throughput.

**How TR-LSC is superior to older technology**

Traditional counters are based on two-dimensional pulse analysis: pulse height and pulse counts. They provide a level of sensitivity that’s merely adequate for most applications.

Patented TR-LSC adds a third dimension to pulse analysis: a pulse index that measures over time the after-pulses associated with background. In doing so, TR-LSC clearly distinguishes between beta pulses and background pulses. By identifying, and reducing, background noise, TR-LSC provides a great level of sensitivity (see chart comparing E/B values) and more accurate counts.

![Diagram of pulse analysis](image)

The typical beta scintillation pulse (top) is very fast and may be followed by a delayed component. The typical background pulse is followed by a series of after-pulses. Patented TR-LSC distinguishes between the two.

**Achieve accurate counts on samples as small as 25 μL**

Traditional technology limits sensitivity. The improved sensitivity of TR-LSC, however, allows you to achieve accurate DPM results for single and dual label samples in volumes as small as 25 μL. That can add up to substantial savings in sample and cocktail costs.

**Slash radioactive waste disposal costs**

Counting smaller samples will also reduce radioactive liquid disposal costs, which can be $500 per drum, or higher. While you may not pay this cost directly, your operating budget could be affected. With TR-LSC you can cut operating costs while reducing environmental hazards.

**Increase sample throughput by over 80%**

Just as TR-LSC reduces the volume of sample and cocktail required for accurate counting, it also reduces the time required for an accurate count. By cutting background in half, high sensitivity TR-LSC lets you count nearly twice the number of vials of a 250-DPM sample, in the time it would take to count a single vial using conventional technology. For lower activity samples, the increase in throughput with TR-LSC is even greater.

**Automatic data interpretation, too**

Another advanced feature available only with Tri-Carb analyzers is automatic tandem processing. This unique capability processes your counting data automatically using one software program after another – RIA packages, spreadsheets, word processing, or custom-written programs – until the results are printed in whatever format you have specified. All this is done automatically, without operator intervention, for up to 30 users.

**Free Investigator’s Guide provides a complete explanation of the benefits of TR-LSC**

More information on TR-LSC, and other exclusive Packard features, is available in a new publication, the Investigator’s Guide to TR-LSC Technology and Tri-Carb Liquid Scintillation Analyzers. For your free copy, mark the reader service number below or call us today.

Call toll free 1-800-323-1891 or FAX 203/235-1347.

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