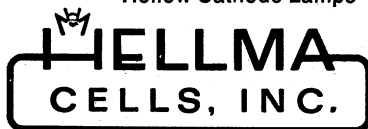




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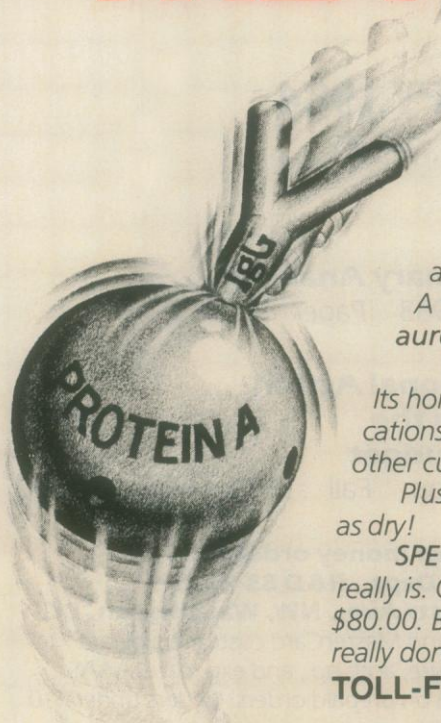
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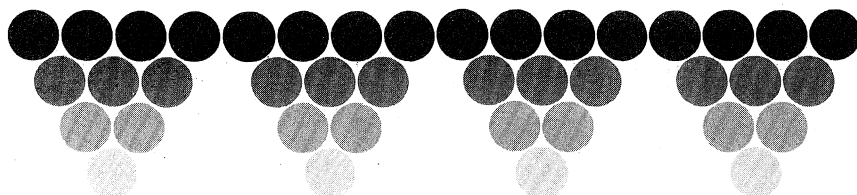


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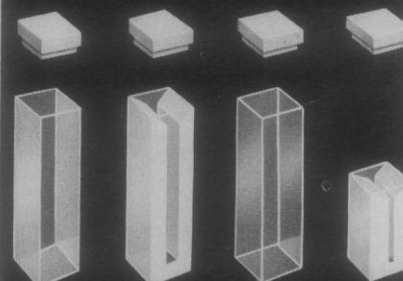
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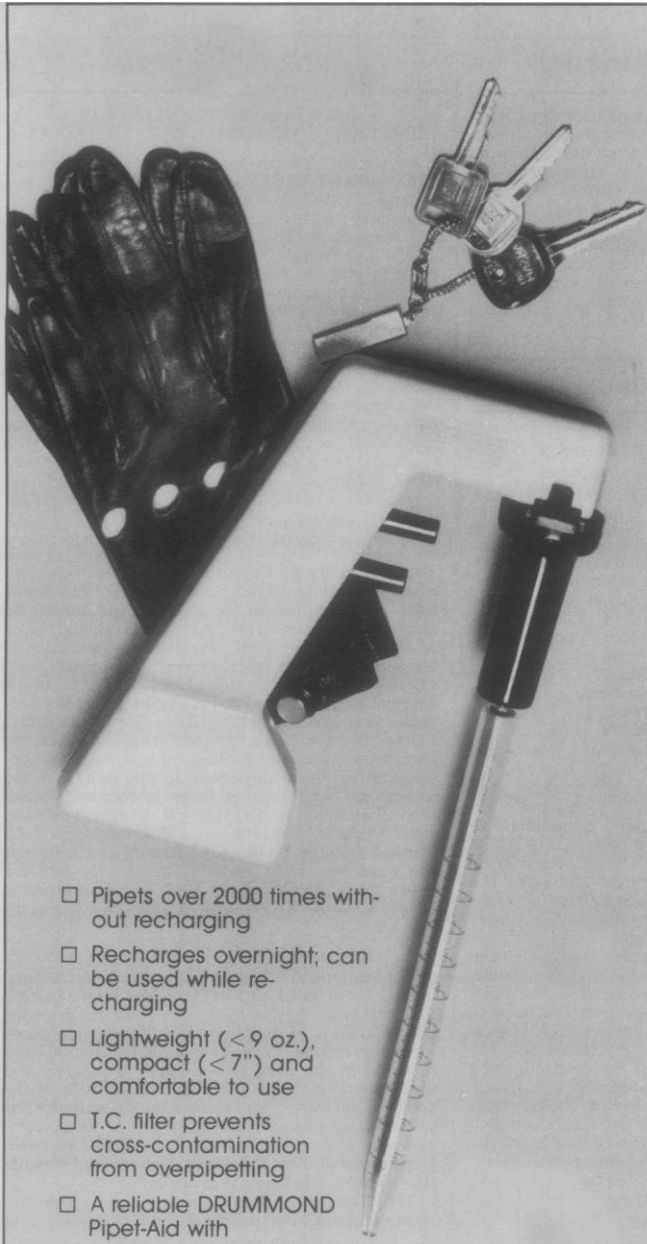
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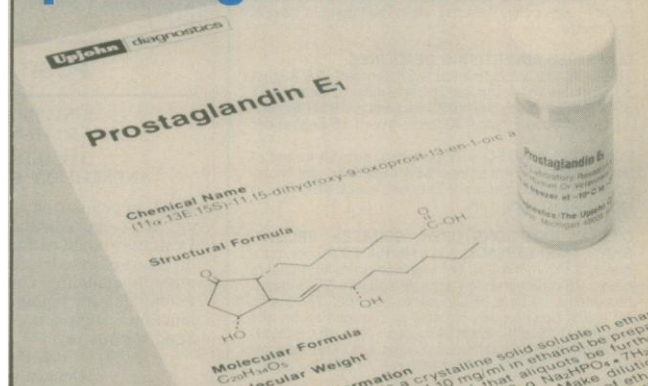


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The Department of Psychiatry, University of California, San Diego, is seeking faculty candidates at the **ASSISTANT PROFESSOR OR ASSOCIATE PROFESSOR** level who have strong backgrounds and experience in clinical neuropsychology. The position is jointly funded by the San Diego Veterans Administration Medical Center and the University of California at San Diego. Candidates must have documented expertise as a neuropsychologist and have a strong track record in research, commensurate with their time and experience in the field. Experience in clinical settings and documented teaching skills are essential. In addition, clinical administrative experience is very desirable. The level of this appointment will be determined by academic qualifications and achievements. Candidates must hold a Ph.D. in clinical psychology from an APA-approved program and must have completed an APA-approved internship in clinical psychology. To be eligible, candidates must qualify for Board-certification/licensure within the state of California as a clinical psychologist.

Salary: related to academic rank and step within the established salary schedule of the University of California, San Diego.

Send curriculum vitae by 30 September 1983 to: **Lewis L. Judd, M.D., Professor and Chairman, Department of Psychiatry (M-003), University of California, San Diego, La Jolla, Calif. 92093.**

*The San Diego Veterans Administration Medical Center and the University of California, San Diego, are Equal Opportunity/Affirmative Action Employers.*

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**ASSISTANT PROFESSOR** position in the Department of Pathology, Temple University Medical School. M.D. and/or Ph.D. with strong research interest in molecular biology. Applications should be sent to: **Dr. Joseph Baum, Department of Pathology, Temple University School of Medicine, Philadelphia, Pa. 19140. Equal Opportunity/Affirmative Action Employer.**

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Candidates should submit curriculum vitae (including a list of publications and a summary of their teaching and research objectives) and request three letters of reference, all to be sent to: **Chairman, Department of Chemistry, University of California, Berkeley, California 94720.** Deadline for receipt of applications is 1 December 1983. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

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The University of California, San Francisco, Department of Pharmacology, seeks to fill two tenure-track positions, one at the **associate** and one at the **assistant professor** level. Applicants should have demonstrated ability in investigating fundamental biological problems relevant to pharmacology. Successful candidates should also be able to teach pharmacology to professional and graduate students. Anticipated starting date: September 1984. Letters of application should be accompanied by curriculum vitae and bibliography, a narrative description of future directions in research, and the names and addresses of three references. Please send all materials to: **Dr. Henry R. Bourne, Professor and Chairman, Department of Pharmacology, 1210 Medical Sciences Building, University of California, San Francisco, Calif. 94143.** The closing date for applications is 1 December 1983. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

Applications are invited for a tenure-track position as an **ASSISTANT PROFESSOR OF PLANT PATHOLOGY** beginning 1 May 1984. Experience beyond a Ph.D. in quantitative biology or soil microbiology preferred. Position will involve teaching and research in the area of soil-borne pathogens and their interaction with other microorganisms at the soil-root interface. Send statement of research interest, résumé, transcripts, and names of three references by 15 September 1983 to: **Dr. D. P. Maxwell, Department of Plant Pathology, University of Wisconsin-Madison, Madison, Wis. 53706.**

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Cell biologist interested in correlating cell structure with physiology. The use of genetic and immunologic approaches are especially desired. Please contact: **Anthony P. Mahowald, Chair, Department of Developmental Genetics and Anatomy, Case Western Reserve University, Cleveland, Ohio 44106.** *The University is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority groups.*

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Developmental geneticist interested in using molecular approaches to understanding the genetic control of developmental events. Please contact: **Anthony P. Mahowald, Chair, Department of Developmental Genetics and Anatomy, Case Western Reserve University, Cleveland, Ohio 44106.** *The University is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority groups.*

### CEREBROVASCULAR RESEARCH

The Section of Cardiovascular Neurobiology, Division of Research, Cleveland Clinic Foundation, is seeking applicants for a faculty position in the Cerebrovascular Research Laboratory. Applicants must have an M.D. or Ph.D. degree and experience in cerebrovascular research. Individuals with a background in neurochemistry, autoradiography and/or cerebral blood flow measurement are preferred. The position also requires participation in the postgraduate neuroscience education program and an interest in clinical neuroscience.

Candidates should submit their curriculum vitae, bibliography, and three references to: **Carlos M. Ferrario, M.D., Department of Cardiovascular Research, Division of Research, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, Ohio 44106.**

### CHAIRMAN DEPARTMENT OF BIOLOGY AND HEALTH SCIENCES

The Department invites applications for the position of chairman. Candidates must hold a Ph.D. in microbiology/immunology and have demonstrated capability in administration, teaching, and research. Curriculum vitae and names of three references must be received by 1 October 1983. Send to: **Dr. J. Donald LaCroix, Chairman, Search Committee, Department of Biology and Health Sciences, University of Detroit, Detroit, Michigan 48221.** *An Equal Opportunity/Affirmative Action Employer.*

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The Department of Biochemistry and Molecular Biology at the University of Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute, invites applications for tenure-track positions at the assistant, associate, and full professor levels. Applicants should have a Ph.D. or M.D. and a proven record of accomplishments as a postdoctoral student or faculty member. Strong preference will be given to biochemists and molecular or cell biologists with demonstrated interests in some aspect of the regulation of differentiation and development. Applicants should send a letter outlining their research interests, their résumé, and three letters of reference from individuals familiar with their work to: **Dr. William J. Lennarz, Department of Biochemistry and Molecular Biology (Box 117), The University of Texas System Cancer Center, 6723 Bertner Avenue, Houston, Texas 77030.** Deadline for all application materials is 15 October 1983. *An Affirmative Action/Equal Opportunity Employer.*

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To apply, please send letter of application, résumé and references to: **Personnel Manager, NEW ENGLAND AQUARIUM, Central Wharf, Boston, Massachusetts 02110.** Closing date: 30 September 1983. Travel not reimbursed.

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### LABORATORY OF RADIOBIOLOGY AND ENVIRONMENTAL HEALTH UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF)

**CYTOGENETICIST.** Applications are invited for a research position at level equivalent to assistant professor to pursue biochemical and biophysical investigations on the genetic effects of radiation and mutagenic carcinogens, with emphasis on chromosome structure and repair.

At least 2 years of postdoctoral experience in basic studies concerned with chromosome aberrations and sister chromatid exchanges is required. Experience with mammalian cell culture and mammalian cell mutation assays and with alkaline elution and isopycnic centrifugation techniques are absolutely essential.

Send curriculum vitae, a statement of research interest, and names and addresses of three references to: **Dr. Robert Painter, Chair, Search Committee, Laboratory of Radiobiology and Environmental Health, LR-102, University of California, San Francisco, California 94143.** Applications must be received by 15 September 1983.

*UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

The University of Michigan Medical School. **Department of Radiology** has on occasion open **FACULTY POSITIONS** within the department and its affiliated hospitals. Physicians filling these positions will take part in the programs of patient care, teaching, and research in the Department of Radiology. They will supervise the activities of house officers and aid in the teaching of house officers and medical students. Qualified applicants must be American Board of Radiology-certified and Board-eligible. Previous training or work experience in an academic institution as well as demonstration of previous academic research and teaching experience are desirable. Academic rank will depend on qualifications and experience.

Interested applicants should contact: **William Martel, M.D., Chairman, Department of Radiology, The University of Michigan Medical School, Ann Arbor, Michigan 48109.** *A nondiscriminatory, Affirmative Action Employer. Code 47F0.*

## POSITIONS OPEN

**DEAN OF THE GRADUATE DIVISION**—University of Hawaii at Manoa. Starting date: 1 July 1984. Minimum qualifications: earned doctorate, eligible for full professorial rank, 3 years of academic administration experience, faculty experience in graduate education and administering graduate programs, and strong teaching and publication record. Salary range: \$45,587 to \$68,381. Full description available upon request. Send nominations and applications with letter, full résumé, and names of three references to: **Dr. Richard Seymour, Chair, Selection Committee, Webster 202, University of Hawaii, Honolulu, Hawaii 96822.** Closing date: 30 September 1983. *The University of Hawaii is an Equal Opportunity/Affirmative Action Employer.*

### DIRECTOR, ELECTRIC POWER RESEARCH PROGRAM

University professional staff position to organize research program in broad area of environmental effects of electric power industry. Research management and leadership experience essential. Area of focus is tidewater region of East Coast, New York to South Carolina. Location: Lewes, Delaware. Minimum qualifications: master's degree plus experience; Ph.D. preferred. Experience with electric power industry desirable. Send résumé to: **Richard W. Schneider, Executive Officer, College of Marine Studies, University of Delaware, Newark, Delaware 19711.** Telephone: 302-738-8182. Closing date for applications is 15 September 1983. *The University of Delaware is an Affirmative Action/Equal Opportunity Employer.*

The Virginia-Maryland College of Veterinary Medicine invites applications for tenure-track **FACULTY POSITIONS** in: molecular biology, molecular pharmacology and receptor physiology, immunogenetics, microbial genetics, cell and membrane physiology, intermediate metabolism, and molecular and immunoparasitology. Appointees would be expected to develop vigorous research programs and to teach at the professional and graduate levels. Salary and rank will be commensurate with qualifications and experience.

Closing date is 15 October 1983 (date may be extended). Submit curriculum vitae with a statement of intent detailing professional interest and experience and the names and addresses of three references to: **Dean Richard B. Talbot, Virginia-Maryland College of Veterinary Medicine, Virginia Tech, Blacksburg, Va. 24061-5999.** *An Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION

Responsibilities include development of behavioral and physiological procedures based upon prior training and experience with animal and human experimentation, residential laboratory management, acquisition of research funding, and clinical studies of consummatory processes including feeding and drug-taking. Teaching in medical school setting involving graduate and residency training experience required. Ph.D. and/or M.D. applicants send curriculum vitae and references to: **Paul McHugh, M.D., Director, Department of Psychiatry and Behavioral Sciences, The Johns Hopkins University School of Medicine, Baltimore, Md. 21205.** *Equal Opportunity/Affirmative Action Employer, M/F.*

### UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

Applicants are solicited for **FACULTY POSITIONS** in the following departments:

**ANATOMICAL SCIENCES**—(Number 0014) **Assistant professor.** To teach microanatomy to medical, dental, and health-related students. Participate in graduate education and carry out independent research projects with extramural funding. Ph.D. degree in anatomical sciences or M.D. degree. Experience in teaching microanatomy and research using modern techniques and methods. Postdoctoral appointment for 1 or 2 years is desirable and will be given special consideration.

**UROLOGY**—(Number 0101) **Professor.** To establish a program in biochemistry in a multidisciplinary effort interfacing with occupational health disciplines and who will engage in collaborative research involving the genitourinary tract. Candidate must have Ph.D. degree in biochemistry.

Applicants should send curriculum vitae, identifying vacancy number for which they are applying, to: **Charles B. McCall, M.D., Dean, College of Medicine, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Okla. 73190.** *We are an Equal Opportunity Employer.*

## DIRECTOR OF THE VIROLOGY RESEARCH CENTRE

**THE ORGANIZATION:** The only one of its kind in Quebec the Institut Armand Frappier plays a leading role in research and graduate teaching in microbiology, immunology and biotechnology. The Institute is also involved in the delivery of diagnostic services and the production of biological and diagnostic products for human and veterinary use.

**THE POSITION:** Under the authority of the Director of the Institute, the Director of the Virology Research Centre, one of the six research departments of the Institute will be required to develop and sustain programs of research, teaching and community services relevant to the objectives of the Institute and within the limits of available resources. He will also be required to contribute to the overall development of the Institute.

**THE CANDIDATE:** Holder of a Ph.D. degree or the equivalent in an appropriate discipline, bilingual, the candidate will already have an established reputation in his field. Administrative experience, strong scientific leadership and solid achievements will be further advantages. **THE SALARY:** As appropriate to the position. *Please send your curriculum vitae before November 15, 1983 to:*

Institut Armand Frappier  
Service des ressources humaines  
531, boulevard des Prairies  
Laval-des-Rapides, Laval  
(Québec) Canada H7N 4Z3



Université du Québec  
Institut Armand-Frappier

## Post Doctoral Scientist Cell Biologist

SmithKline Beckman, a leader in pharmaceutical research, is seeking a Post Doctoral Scientist to join an interdisciplinary research program in an environment designed to foster creative, innovative research and to promote personal and professional growth.

We consider post doctoral studies to be of major importance in an individual's career and encourage publication of findings in leading journals and a full interaction with the scientific community.

Our post doctoral appointments are of 1 year duration and with mutual agreement, renewable for a second year. The successful candidate will work on stimulus-response coupling, arachidonic acid metabolism and other aspects of neutrophil function.

Candidates are required to have a PhD in Cell Biology with a strong background in biochemistry and some training in immunology.

Preference will be given to candidates having experience in either biochemical analysis of neutrophil function or receptor-ligand studies.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your C.V. and names of 3 references to: Mr. Walter B. Flagg, SmithKline Beckman Corporation, 1556 Spring Garden St., Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

# SK&F

A SmithKline Beckman Company

## THE UNIVERSITY OF MIAMI SCHOOL OF MEDICINE AND THE NATIONAL PARKINSON FOUNDATION

Announce the availability of a faculty position, carrying the title of:

### PARKINSON SCHOLAR

The position includes a tenured or tenure-earning appointment as Professor or Associate Professor in the appropriate Department at the School of Medicine. One million dollars will be made available to the Scholar over a 5-year period, with continued funding thereafter at a higher level if the scholar is productive. 2,600 square feet of new laboratory space will be provided. It is expected that the Scholar will develop a program in basic or applied research related to Parkinson's disease, other movement disorders, or disturbances of cognitive function. Any neuroscientist with demonstrated competence and high promise is invited to submit a curriculum vitae, with a list of publications, and the names of at least three references to: Dr. Peritz Scheinberg, Parkinson's Scholar Search Chairman, Department of Neurology, University of Miami School of Medicine, P.O. Box 016960, Miami, FL 33101.

An Equal Opportunity/Affirmative Action Employer

## Molecular Pharmacologist

SmithKline Beckman, a leader in pharmaceutical research, is seeking an outstanding scientist to collaborate with others in the development and direction of a Biochemical Research program in Respiratory Pharmacology.

The successful candidate will be responsible for the application and development of state-of-the-art technologies for the discovery of drugs to treat diseases of the respiratory system.

Preference will be given to candidates who have:

- a PhD in pharmacology or biochemistry with one to three years relevant post doctoral experience.
- formal training and experience in biochemistry of phospholipids and arachidonic acid metabolism.
- experience in enzyme purification and HPLC techniques.
- demonstrated record of bibliographic excellence.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your C.V. and names of 3 references to: Mr. Walter B. Flagg, SmithKline Beckman Corporation, 1558 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

# SK&F

A SmithKline Beckman Company

# Gastrointestinal Pharmacologist

SmithKline Beckman, a leader in pharmaceutical research, is seeking a Pharmacologist who has a keen interest in research in gastrointestinal pharmacology.

The successful candidate will:

- have a primary research interest in gastrointestinal transport processes
- apply known state-of-the-art technologies/theories and develop new methodologies where applicable to the discovery of drugs to treat gastrointestinal tract diseases.

Candidates are required to have:

- a PhD in pharmacology, physiology or biochemistry with 0 to 4 years relevant post doctoral experience
- formal training and experience in one or more of the following:
  - physiology of transcellular ion transport by intestinal mucosal epithelium
  - membrane and intracellular enzyme systems of intestinal mucosal cells
  - mechanisms of intestinal mucosal cell secretion and absorption
  - use of current techniques for the study of gastrointestinal electrophysiology

Preference will be given to those who also have a demonstrated record of bibliographic excellence and the ability to interact in an interdisciplinary fashion.

SmithKline Beckman offers an excellent benefits and compensation program including an attractive relocation package. For confidential consideration send your C.V. and names of 3 references to: Mr. Walter B. Flagg, **SMITH KLINE & FRENCH LABORATORIES**, a division of, SmithKline Beckman Corporation, 1552 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

**SK&F**  
A SmithKline Beckman Company

## Scientist Antifungal Agents Discovery

SmithKline Beckman, a leader in pharmaceutical research, is seeking an outstanding scientist to participate in our Microbial Biochemistry programs in an environment designed to foster creative, innovative research and to promote personal and professional growth.

The successful candidate will:

- identify and evaluate biochemical targets against clinically important pathogenic fungi.
- design and execute studies on the identification of agents with antifungal activities.
- collaborate with medicinal chemists and microbiologists in the establishment of novel drug design and targeted screening programs for selective anti-infective agents.

Candidates are required to have:

- a PhD in Biochemistry or Microbiology with two or more years of relevant post doctoral experience.
- experience in studying isolated enzyme reactions or the mechanism of action of inhibitors.
- the ability to work within a multidisciplinary program team and the capability to communicate ideas and experimental results.

Preference will be given to those who also have a working knowledge of fungal physiology and genetics.

SmithKline Beckman offers an excellent benefits and compensation program including an attractive relocation package. For confidential consideration, send your C.V. and names of three references to: Mr. Walter B. Flagg, **SmithKline Beckman Corporation**, 1554 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

**SK&F**  
A SmithKline Beckman Company

## POSITIONS OPEN

**EXPERIMENTAL PATHOLOGIST.** The Department of Pathology, University of California, San Francisco, is seeking an investigator (M.D. or Ph.D.) active in cell biology-oriented experimental pathology. Excellence in research is of prime importance. Emphasis on extracellular matrix, immunopathology, or developmental biology is encouraged. Rank and salary are open. Direct inquiries to: **Dr. Dorothy F. Bainton, Chairperson, Experimental Pathology Search Committee, Department of Pathology, University of California, San Francisco, Calif. 94143.** *An Equal Opportunity/Affirmative Action Employer.*

**FACULTY POSITION IN PHARMACOLOGY.** School of Medicine in the South is seeking to fill a full-time position in pharmacology at the assistant professor level. A Ph.D. in pharmacology from a medical school or M.D. is required. This is a tenure-track position and interest is invited from qualified individuals. The individual will participate in an innovative curriculum based upon problem-solving in small group tutorials. Teaching background in cardiovascular or neuropharmacology is preferred and an active research program is desired. Area of research interest is open. Closing date for application will be 1 October 1983. Forward curriculum vitae and names of three references to: **John Cramer, School of Medicine, Mercer University, Macon, Ga. 31207.**

**FACULTY POSITION (VISITING APPOINTMENT).** Applications are invited for a temporary position for an **ANIMAL PHYSIOLOGIST** to teach vertebrate physiology and laboratories. Appointment to start 1 January 1984. Submit curriculum vitae and three letters of reference by 15 October 1983 to: **Chairman, Department of Biology, Southern Methodist University, Dallas, Texas 75275.** *Equal Opportunity/Affirmative Action/Title IX Employer.*

### FACULTY POSITIONS THREE TENURE-TRACK POSITIONS

- 1) Molecular Genetics
- 2) Molecular Biologist
- 3) Population Genetics

Applications are invited from candidates with 2 to 3 years of postdoctoral experience. Successful candidates will be expected to develop a vigorous research program and to participate in departmental teaching.

Date of appointment: 1 August 1984.

Submit curriculum vitae, position objective, and three letters of reference by 1 November 1983 to: **Chairman, Department of Biology, Southern Methodist University, Dallas, Texas 75275.** *Equal Opportunity/Affirmative Action/Title IX Employer.*

### DEPARTMENT HEAD DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY UNIVERSITY OF ARIZONA

An established scientist with leadership and administrative abilities is sought to preside over this growing, research-oriented department beginning 1 July 1984. Applications consisting of letter of inquiry, curriculum vitae, and names and addresses of at least three references should be sent before 30 September 1983 to: **Search Committee, Department of Ecology and Evolutionary Biology, University of Arizona, Tucson, Arizona 85721.**

*The University of Arizona is an Equal Opportunity/Affirmative Action Title IX/Section 504 Employer.*

**VISITING LECTURER IN PHYSIOLOGY.** The Department of Animal Physiology at the University of California, Davis, invites applications for a visiting lecturer in physiology, the level depending on background and experience. Appointment will be made for 1 year beginning 1 January 1984, with re-employment possible for a second year. This is a 9-month, full-time appointment. Minimum qualifications include a Ph.D. in systemic physiology. The successful applicant will be expected to contribute to the department's teaching and advising program in systemic physiology for undergraduate students. Applicants should submit curriculum vitae, bibliography, recent reprints, transcripts (if Ph.D. conferred within last 5 years), and the names and addresses of at least three references to: **Chair, Visiting Lecturer Search Committee, Department of Animal Physiology, University of California, Davis, Calif. 95616.** Closing date for receipt of applications is 1 October 1983.

*The University of California is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.*



## CARDIOVASCULAR SCIENTIST

The person holding the position of cardiovascular scientist will have an appointment in an appropriate academic department and the Tobacco and Health Research Institute. The principal responsibility and activity of the faculty member will be to lead and engage in research concerning mechanisms involved in any smoking-related physiologic, pharmacologic, pathologic, or biomedical effects on the cardiovascular system. Although some experience with smoking-related research is desirable, it is not a requirement for this position. In association with the joint appointment, it is anticipated that the faculty member will maintain close contact with his/her academic department and may engage in teaching and/or clinical activities of that department to a limited degree.

It is expected that the faculty member will maintain a vigorous research program as evidenced by quality publications, and participation in appropriate forums at the national and international level with respect to smoke-related investigations. Within the College of Medicine and other Medical Center colleges, the opportunity for collaboration with researchers in cardiovascular pharmacology, cardiovascular physiology, clinical cardiology, cardiovascular surgery, and other investigators involved in smoke-related research is available and will be encouraged.

Applications are invited from established scientists for this position. The thrust of this position will be to engage in basic and/or clinical research related to any effects of tobacco smoke on physiologic, pathologic, pharmacologic, and biochemical aspects of the cardiovascular system. Candidates must have a Ph.D., M.D., or D.V.M. degree and qualifications for appointment at the level of either associate or full professor. Potential long-term financial support for salary and significant investigational funds is included with the position. Please send curriculum vitae, a list of professional references, and an outline of research interests to: John S. Thompson, M.D., Chairman, Cardiovascular Search Committee, Department of Medicine, University of Kentucky College of Medicine, 800 Rose Street, Lexington, Kentucky 40536-0084. Affirmative Action/Equal Opportunity Employer.

## Bioanalytical Scientist

A challenging opportunity is available in the Pharmacodynamics Department of the Medical Research Division of American Cyanamid Company.

The successful applicant will be responsible for developing Bioanalytical Procedures and conducting drug analyses in various classes of drugs currently under intensive development.

The requirements include a Ph.D. with 0-2 years' post-doctoral, industrial or academic research experience, a strong analytical background and familiarity with pharmacokinetics and drug metabolism.

The position is located at Lederle Laboratories, 30 miles northwest of New York City. We offer professional growth, competitive salary and fringe benefit programs. Please send curriculum vitae (principals only) to: Ms. K. McDevitt, Professional Employment Coordinator



# CYANAMID

**American Cyanamid Company**

Medical Research Division  
Lederle Laboratories  
Pearl River, NY 10965

An Equal Opportunity Employer M/F

## CSIRO RESEARCH FELLOW

**\$A23,340 — \$A34,330**  
**DIVISION OF MINERAL ENGINEERING**  
**CLAYTON VIC AUSTRALIA**

CSIRO conducts scientific and technological research in laboratories located throughout Australia and employs about 7,500 staff, of whom some 2,900 are professional scientists. The Organization's research activities are grouped into five Institutes: Animal and Food Sciences, Biological Resources, Energy and Earth Resources, Industrial Technology and Physical Sciences. The CSIRO Division of Mineral Engineering is a member of the Institute of Energy & Earth Resources.

**FIELD:** Image analysis/geometric probability applications in mineral processing and ore characterization.

**GENERAL:** CSIRO has developed a fully automated image analysis system, QEM + SEM, for quantitative evaluation of minerals by scanning electron microscopy, which creates mineral image maps from drill core, ore and particle section or surfaces. Image processing of these maps quantifies the amounts, distributions and textures of minerals and phases, for applications such as ore characterization, mineral liberation following grinding, and mineral concentration processes.

**DUTIES:** To complement existing QEM + SEM measurement capabilities the Division wishes to appoint a scientist to undertake research aimed at the creation of new concepts for the application of the basic image information, and to put these concepts into practice. There is a substantial research activity in mineral processing and in mathematical modelling in the Division, which will support the research to be performed.

The appointee will relate mathematical and logical concepts to real phenomena, extract conceptual models from complex data or information fields, and/or apply the resulting insights, models and theorems into practical and industrial situations.

The appointee will, preferably, also be able to direct the QEM + SEM project.

**QUALIFICATIONS:** A PhD degree or equivalent qualifications in a relevant field, together with appropriate post graduate experience.

The appointee will have a sound knowledge of physical sciences, with a background in some or all of applied mathematics, geometrical probability, image analysis, mathematical morphology or advanced stereology. A proven communication record in the basic sciences, and preferably also in industry applications is essential. Experience in industrial mineral processing and control would be an advantage.

**NOTE:** In the case of an outstanding applicant with appropriate experience, appointment at a higher classification would be considered.

**TENURE:** A term of 3 years, with the possibility of a further term not exceeding two years. Australian Government superannuation benefits available.

**APPLICATIONS:** Stating full personal and professional details, the names of at least two referees and quoting reference No. A1729 should be directed to:

**The Chief CSIRO Division of Mineral Engineering**  
**PO Box 312 Clayton VIC 3168 AUSTRALIA**  
**By October 15th, 1983.**

35231



**RIO GRANDE RESEARCH CORRIDOR**  
**CENTERS OF TECHNICAL EXCELLENCE**  
at New Mexico State University

**Plant Genetic Engineering Laboratory For Desert Adaptation**  
**Lead Scientist/Director**

New Mexico has launched a bold new program to enhance the state's leadership in science and technology with the Rio Grande Research Corridor initiative, aimed at joining the federal, state and private sectors in the pursuit of selected areas of high-technology development, as a part of a major effort to enhance economic development within the state. The Rio Grande Research Corridor includes five federal laboratories and three state-supported doctoral-level universities located along the 300-mile stretch of the Rio Grande River from Los Alamos to Las Cruces. To further enhance the technological capabilities of New Mexico, the state has funded five centers of technical excellence including the Plant Genetic Engineering Laboratory for Desert Adaptation at New Mexico State University. This funding will support additional professional personnel as well as provide supplemental, state-of-the-art research facilities.

The mission of the laboratory is to conduct interdisciplinary research aimed at improving the capabilities of crop plants to be productive under the environmental conditions and agricultural practices mandated by arid and semi-arid climates. This goal is dependent on substantial research in appropriate aspects of stress physiology and biochemistry, molecular biology, molecular and cellular genetics, and classical genetics and breeding. The laboratory will maintain parallel programs of basic and applied research with continual interplay between theoretical developments and the demands of application. The laboratory will also serve as the focal point for a strong interdisciplinary academic program including graduate degrees and training of scientists at all levels of professional development.

An outstanding senior scientist is sought to direct the Plant Genetic Engineering Laboratory. Full-time, twelve-month, tenured appointment as a full professor. Efforts divided between research and administration with support provided for both. Earned doctorate, recent experience and strong publication record in plant molecular biology or genetics research, demonstration of leadership qualities, and ability to administer and guide interdisciplinary research are required. Includes planning and implementing additional facilities, faculty, support staff, post-doctoral and graduate student training, new research programs and laboratory budgets. Cooperation with Agricultural Experiment Station, USDA-ARS, other campus programs, Los Alamos National Laboratory, other federal programs and industry. The Lead Scientist/Director will hold an academic appointment in an appropriate department.

Salary is very competitive with the best public and private placement, commensurate with qualifications. Send nominations or applications, curriculum vitae and names of three references to:

**Dr. Merle Niehaus, Chair of P.G.E.L. Search Committee**  
**P.O. Box 3Q, New Mexico State University, Las Cruces, N.M. 88003**  
Application deadline: October 1, 1983.  
An Equal Opportunity/Affirmative Action Employer.



**PLANT GENETIC ENGINEERING LABORATORY**

**POSITIONS OPEN**

**IMMUNOLOGIST**—U.S. subsidiary of international biological products company is inviting applications for Ph.D. immunologist to participate in the development of vaccines of viral and bacterial origin. The successful candidate will have a broad background in immunology and immunochemistry with experience relating to antigen enhancement and the development of evaluation methods in appropriate animal test systems. Connaught is located in the Pocono Mountain region of northeastern Pennsylvania. We offer a competitive starting salary and comprehensive benefits package. To apply, submit résumé, including current salary, to: **D. H. Gattone, Personnel Director, CONNAUGHT LABORATORIES, INC., Swiftwater, Pa. 18370. An Equal Opportunity Employer, M/F.**

**INSTRUCTOR**  
**BIOLOGICAL CHEMISTRY**

Instructor/research position is available in the area of molecular biology of gene expression. Duties include teaching laboratory techniques to advanced graduate students in the area of recombinant DNA and gene cloning and research in the area of muscle gene expression in *Drosophila*. Qualifications include Ph.D. degree and experience in recombinant DNA techniques. Send curriculum vitae to: **Dr. Robert Storti, Department of Biochemistry, University of Illinois at Chicago, 1853 West Polk, Room A-312, Chicago, Illinois 60612.**

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

**INSTRUCTOR/POSTDOCTORAL ASSOCIATE** to work on cloned rDNA transcription, factors controlling transcription, role of RNA polymerase I in autoimmune diseases and specific nuclear protein kinases in transcription. Send curriculum vitae and three letters of references to: **Dr. S. T. Jacob, Professor, Pharmacology Department, The Pennsylvania State University College of Medicine, M. S. Hershey Medical Center, P.O. Box 850, Hershey, Pa. 17033. Equal Opportunity/Affirmative Action Employer.**

**MARINE ORGANIC CHEMIST**—Research associate in the Cooperative Institute of Marine and Atmospheric Sciences, University of Miami and National Oceanic and Atmospheric Administration (NOAA). Experience in GC-MS-DS and sampling from ships or aircraft desired. M.S. preferred. Contact: **Chairman, Search Committee, D. K. Atwood, NOAA/AOML, 4301 Rickenbacker Causeway, Miami, Florida 33149.**

**MICROBIAL OCEANOGRAPHER**

A junior-level faculty position is available for a biological oceanographer experienced in microbial ecology in the broad sense, that is, encompassing studies of bacteria, phytoplankton, phytobenthos, and microzooplankton in the contexts of their environments. A balance of field, laboratory, and theoretical experience will be favored, as will interdisciplinary ties to other branches of oceanography. Teaching at the graduate and undergraduate level will be emphasized, and the successful candidate will be expected to develop a funded research program. Applicants should send curriculum vitae, pertinent reprints, and the names of four references to: **Dr. Brian T. R. Lewis, Director, School of Oceanography, WB-10, University of Washington, Seattle, Wash. 98195 (telephone: 206-543-6487). The closing date for applications is 15 October 1983. The University of Washington is an Equal Opportunity/Affirmative Action Employer. Oceanography advertisement number 831.**

**MICROBIOLOGIST/IMMUNOLOGIST**

Agricultural Research Service (ARS), U.S. Department of Agriculture (USDA), has an opening for a permanent research microbiologist with a background in immunology/immunochemistry. Responsibilities will include the recovery of antigens of avian parasites by current immunological techniques, classification and identification of antibodies and antigens, use of immunodiffusion gel electrophoresis, and column chromatography techniques. The position will be graded at either the GS-12 or GS-13 level, depending on the candidates' qualifications. For further information and/or the required application forms, please contact: **Rich Hastings, USDA, ARS, Northeastern Regional Personnel Office, Room 107, Building 003, BARC-West, Beltsville, Md. 20705, by mail, or telephone: 301-344-2756. Applications must be postmarked no later than 19 September 1983. The USDA is an Equal Opportunity/Affirmative Action Employer.**

# DIRECTOR

## USDA Human Nutrition Research Center on Aging At Tufts University

Tufts University invites applications and nominations for the Director of the Human Nutrition Research Center on Aging (HNRC). The Director is responsible for the overall management and operation of the HNRC as required to achieve its scientific and educational mission. The Director will also serve as Professor and Associate Dean of the Tufts University School of Nutrition.

The HNRC's mission as established by Congress is to determine how diet alone and associated with other factors affects the aging process. Using human, animal, and tissue culture models, the HNRC will investigate the nutrition requirements of older people, the relationship of diet to aging of human systems and functions, and preventative measures nutrition affords older Americans.

The successful candidate should be an individual of stature with a national reputation with demonstrated expertise in the areas of nutrition research and/or aging. He/she should be an accomplished researcher as demonstrated by scientific contributions, have an M.D. or Ph.D. in an appropriate biomedical scientific discipline, and have demonstrated administrative skills necessary to direct a large complex organization. The candidate should qualify for an academic appointment as Professor in the School of Nutrition.

Send resume or nominations before September 1, 1983 to: Dr. Robert Shira, Office of the President, Tufts University, 193 Harrison Avenue, Boston, Massachusetts 02111.

An Affirmative Action/Equal Opportunity Employer

## KUWAIT

### UNIVERSITY OF KUWAIT HEALTH SCIENCE CENTRE Faculty of Medicine

#### Medical Science and Clinical Appointments

Applications are invited for the following appointments in the Faculty of Medicine

##### Anatomy

Assistant Professor in Gross Anatomy.

—2 posts

Candidates should have sufficient experience in teaching of topographic anatomy in addition to one other discipline of anatomy, e.g. Histology, Embryology or Neuroscience. He should be able to conduct classes independently for medical, dental, allied health and graduate students. Candidates are also expected to have a proven record of research excellence in the speciality preferably in the morphological sciences, e.g. ultrastructure. Preference for the above posts will be given to suitable, medically qualified candidates.

##### Physiology

Assistant Professor (Neurophysiology).

—1 post

Candidate must have a broad background in general neurophysiology with potential for a balanced contribution towards teaching and research development.

#### Requirements for Appointment

Applicants should possess a Ph.D. or higher professional qualification, in their respective speciality and have conducted and published research in their field. Professors should have 14 years' experience, 4 as an associate professor or its equivalent, i.e. senior lecturer or reader. Associate Professor should have 9 years' experience, 4 as an assistant professor or its equivalent, i.e. lecturer.

#### Conditions of Appointment

**Salaries**—Total monthly salaries will be within the following scales according to qualifications and experience (1 KD = £2.2, US\$3.4 approx.).

Professors with clinical appointments = KD 1210–1370 (8 increments).

Professors medically qualified with medical science appointments = KD 1140–1300 (8 increments).

Professors non-medically qualified = KD 1070–1230 (8 increments).

Associate Professors with clinical appointments = KD 989–1149 (8 increments).

Associate Professors medically qualified with medical science appointments = KD 932–1092 (8 increments).

Associate Professors non-medically qualified = KD 875–1035 (8 increments).

Assistant Professors with clinical appointments = KD 768–928 (8 increments).

Assistant Professors medically qualified with medical science appointments = KD 724–884 (8 increments).

Assistant Professors non-medically qualified = KD 680–840 (8 increments).

**Clinical supplements:** In addition to the above University salaries there will be a monthly clinical supplement paid by the Ministry of Public Health for ten months' a year to medical school staff with clinical service commitments. These are:

Professor and Chairman	KD 250
Professor	KD 200
Associate Professor	KD 150
Assistant Professor	KD 100

**Conference:** A member is entitled to attend one academic conference a year which would be subject to the University rules and regulations.

**Gratuity:** There is a gratuity of one month basic salary for each year employed payable on termination of contract.

**Housing:** Suitably furnished, air-conditioned accommodation, electricity and water free of charge.

**Medical Care:** Free, comprehensive treatment is available in Kuwait under the State Health Service.

**Travel:** Air tickets are provided from the country of recruitment for the appointee, spouse and up to three dependent children under 20 years. Thereafter, return air tickets are issued annually to the country of citizenship or permanent residence. On termination of contract, air tickets are provided to the country of recruitment. A baggage and freight allowance is also provided.

**Vacation:** Sixty days paid annual leave and various national holidays.

**Education:** This is provided free in State schools where the instruction is in Arabic. Staff who have to send their children to non-Arabic schools in Kuwait will have the tuition fees of up to a maximum of three met by the University.

**Taxation:** There is no income tax in Kuwait. Currency is transferable without restriction.

#### Method of Application

Curriculum vitae in duplicate, which should include the names of three referees, personal particulars, qualifications with dates, career history, teaching experience, research accomplishments and, where appropriate clinical experience should be sent to the **Dean, Faculty of Medicine, University of Kuwait Health Science Centre, P.O. Box 24923 Safat, Kuwait to arrive no later than 30th October 1983.**



## POSITIONS OPEN

### LIMNOLOGISTS

The Limnology Research Center of the Department of Biology, McGill University, invites applications from **biological, physical, and chemical limnologists** wishing to be considered for sponsorship for NSERC University Research Fellowships. Fellowship tenure is 5 years at salary equivalent to assistant professor or includes automatic operating grant. *Fellowships are open only to Canadian citizens or landed immigrants who have postdoctoral experience.* Interested individuals should **IMMEDIATELY** forward curriculum vitae, statement of research interests and goals, and three letters of reference to: **Dr. J. Kalff, Department of Biology, McGill University, 1205 Avenue Dr. Penfield, Montreal, Quebec, Canada H3A 1B1.** **DEADLINE** for receipt of all application materials is 19 September 1983.

### MOLECULAR BIOLOGISTS ISRAEL

International Genetic Sciences (IGS) Partnership is seeking molecular biologists for our Jerusalem research facility. Applicant should have experience in recombinant DNA technology in either animal or plant cells. Please send curriculum vitae, list of publications, and recommendations to:

**IGS PARTNERSHIP**  
155-25 Styler Road  
Jamaica, New York 11433

### MOLECULAR BIOLOGIST

Twelve-month, tenure-track faculty molecular biology position, devoting 75 percent time in developing a program of basic research in molecular biology or molecular genetics of plants or plant-related biochemical systems and to participate (25 percent) in the teaching program. Salary and rank open. Send résumé, three letters of support, and a brief statement of research interests by 15 October to: **J. M. Daly, Department of Agricultural Biochemistry, University of Nebraska-Lincoln, Lincoln, Nebraska 68583-0718.** Telephone: 402-472-2937. *Affirmative Action/Equal Opportunity Employer.*

### OCCUPATIONAL AND ENVIRONMENTAL MEDICINE AND TOXICOLOGY

Newly formed division under the Department of Medicine of Jefferson Medical College requires a director and an additional faculty member in toxicology. Applications will be considered from both M.D.'s and Ph.D.'s. Liaison with clinical pharmacology and basic science departments. The division has independent support. Interested individuals please send their curriculum vitae to:

**Willis C. Maddrey, M.D.**  
Magee Professor of Medicine  
Jefferson Medical College  
1025 Walnut Street  
Philadelphia, Pa. 19107

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**POSTDOCTORAL FELLOW** to study peptide hormone-receptor interactions and signal transmission in cell membranes. Studies will utilize receptor binding, affinity labeling, and monoclonal antibodies to receptors. The background of the successful candidate may be immunological, biological, or biochemical. Send curriculum vitae and names of three references to: **Dr. David B. Donner, Memorial Sloan Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.**

**POSTDOCTORAL POSITION—MOLECULAR PARASITOLOGY.** Two postdoctoral research associate positions are available immediately for 2 years in order to participate in a research group investigating the structure and function of mitochondrial genes in African trypanosomes. These recombinant DNA studies are involved in identifying and characterizing developmentally regulated clones. A candidate with previous experience in recombinant DNA technology is desired but not required. A stipend of \$16,000 to \$17,000 is available for the first year. Applicants should submit curriculum vitae and the names of three references to:

**Dr. George C. Hill, Director**  
Division of Biomedical Sciences  
Meharry Medical College  
1005 D. B. Todd, Jr., Boulevard  
Nashville, Tenn. 37208

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## POSITIONS OPEN

**PHARMACOLOGIST.** Emory University has a position open at the assistant professor or associate professor rank. Candidates must have doctoral or equivalent degree; for assistant professor rank at least 1 year of postdoctoral research experience and potential to develop an independent research program; for associate professor rank, five or more years of experience in teaching and research in pharmacology or related discipline, evidence of excellent independent research, and current grant support. Strong commitment to teaching and research is essential. Preferred research interests are molecular and cellular pharmacology or neuropharmacology. Curriculum vitae, description of career goals, proposed research program, and three letters of recommendation must be received by 1 October 1983. Address to: **Dr. Neil C. Moran, Chairman, Department of Pharmacology, Emory University, Atlanta, Ga. 30322.**

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### PHYSICAL OCEANOGRAPHER

The School of Oceanography invites applications for a tenure-track position in **physical oceanography**. It is anticipated that appointment will be at the assistant professor level, but applications from more senior persons are welcome. Applicants should have a strong background in data interpretation and the application of fluid dynamics to modern observational oceanography. Teaching at the undergraduate and beginning graduate level will be emphasized, and the successful candidate will be expected to develop a funded research program involving graduate students. Applicants should send curriculum vitae, pertinent reprints, and the names of four references to: **Dr. Brian T. R. Lewis, Director, School of Oceanography, WB-10, University of Washington, Seattle, Wash. 98195** (telephone: 206-543-6487). The closing date for applications is 1 November 1983. *The University of Washington is an Equal Opportunity/Affirmative Action Employer.* Oceanography advertisement number 832.

### PHYSIOLOGY

Assistant or associate professor, initially a term appointment, renewable with prospects for a career position. The successful candidate will be expected to develop his/her own research projects, in coordination with an already established group studying the short- and medium-term effects of ionizing radiation. *This advertisement is directed to Canadian citizens and permanent residents.* Respond with curriculum vitae and names of two references by 15 November 1983 to: **Chairman, Department of Physiology, University of Ottawa, Ottawa, Ontario, Canada K1H 8M5.**

### PLANT ANATOMIST

Assistant or associate professor, tenure-track; 9-month appointment; responsible for teaching lower level and advanced courses; continuing an already well-established research program; competitive in obtaining grant funding; advising graduate students; and becoming involved in scholarly service. Requires a Ph.D. degree, teaching and research experience, and a sound publication record. Salary: \$22,080 or more, commensurate with qualifications. Starts autumn 1984. Apply before 15 November 1983 by sending curriculum vitae and publications and having at least three letters of recommendation sent to: **Dr. Emanuel D. Rudolph, Chairman, Department of Botany, Ohio State University, 1735 Neil Avenue, Columbus, Ohio 43210.** *The Ohio State University is an Equal Opportunity/Affirmative Action Employer. All qualified persons, including women, members of minority groups, and the handicapped, are encouraged to apply.*

### PLANT MOLECULAR BIOLOGIST

Assistant or associate professor, tenure-track; 9-month appointment; responsible for teaching lower level and advanced courses; continuing an already well-established research program; competitive in obtaining grant funding; advising graduate students; and becoming involved in scholarly service. Requires a Ph.D. degree, teaching and research experience, and a sound publication record. Salary: \$22,080 or more, commensurate with qualifications. Starts autumn 1984. Apply before 15 November 1983 by sending curriculum vitae and publications and having at least three letters of recommendation sent to: **Dr. Emanuel D. Rudolph, Chairman, Department of Botany, Ohio State University, 1735 Neil Avenue, Columbus, Ohio 43210.** *The Ohio State University is an Equal Opportunity/Affirmative Action Employer. All qualified persons, including women, members of minority groups, and the handicapped, are encouraged to apply.*

## POSITIONS OPEN

**POSTDOCTORAL POSITIONS** (two) available immediately for 1 to 3 years for studies on the molecular basis of synapse formation in the CNS and identification and characterization of synapse enriched macromolecules. Knowledge of neurobiology, synaptic structure and function, biochemistry, and immunology desirable. Salary negotiable, based on experience. Send curriculum vitae, research plans, and names of three references to: **Dr. Paul Kelly, Division of Biology, Kansas State University, Manhattan, Kans. 66506.** *Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available September 1983 to study **QUANTITATIVE GENETICS** theory or applications of the theory to evolutionary problems. Background in mathematical modeling, or statistics and genetics, is required. Please send curriculum vitae, statement of research interests, and two publications or preprints to: **Dr. Russell Lande, Department of Biophysics and Theoretical Biology, The University of Chicago, 920 East 58 Street, Chicago, Ill. 60637.**

### POSTDOCTORAL POSITIONS

Two positions are available 15 September 1983 in the Section of Plant Biology, Division of Biological Sciences, Cornell University.

- 1) Ion transport in plants. The project is primarily concerned with characterizing the transport of  $H^+$  and other ions in membrane vesicles, isolated protoplasts, and intact cells. Experience in membrane biochemistry and/or electrophysiology would be an advantage. NSF supported.
- 2) Transport of amino acids and sugars into developing embryos. Evaluation of the transport steps involved in phloem unloading and uptake by developing embryos, particularly soybeans, in the context of the control of partitioning. USDA/SEA/CRGO supported.

Salary \$15,000 per annum. Appointments initially for 1 year, renewable up to 3 years, depending on continued grant support after first year. Send curriculum vitae and two letters of recommendation to: **Dr. R. M. Spanswick, Section of Plant Biology, Plant Science Building, Cornell University, Ithaca, N.Y. 14853.**

*Cornell University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITIONS IN CELLULAR ELECTROPHYSIOLOGY OF EPILEPSY.** Two positions are available beginning in fall 1983 at the Duke-VA Epilepsy Center. Studies involve the physiology and pharmacology of neuronal excitability using vertebrate and invertebrate *in vitro* models. State of the art electrophysiological and optical techniques are employed to investigate membrane and synaptic processes. Applicants should send curriculum vitae and three letters of reference to: **Dr. W. A. Wilson, Epilepsy Research Laboratory, Building 16, VA Hospital, Durham, N.C. 27705.** *Duke University is an Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available now to study enzymology and regulation of the metabolic transition leading to butanol production by clostridia. Knowledge of bacterial physiology and biochemistry is necessary. Prefer recent graduates. Send curriculum vitae and at least two letters of recommendation to: **Dr. J. S. Chen, Department of Anaerobic Microbiology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.**

NIH-supported **POSTDOCTORAL POSITION** available immediately in the field of cell biology, epithelial physiology. Successful candidate will join ongoing research on the structure-function aspects of cell volume regulation and ion transport in epithelia. Send curriculum vitae, description of research experience, and names of three references to: **Dr. John W. Mills, Department of Anatomy, Dartmouth Medical School, Hanover, N.H. 03756.** *An Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL RESEARCH POSITION** available immediately for M.D./Ph.D. investigating the behavioral, metabolic, hormonal aspects, and energy expenditure in diabetes and obesity in humans and animals. Strong interest and/or background in nutrition, intermediary metabolism, physiologic psychology, neuropharmacology, and/or neuroendocrinology is desirable. Send curriculum vitae to: **Robert Campbell M.D., University of Rochester School of Medicine, Monroe Community Hospital, Rochester, N.Y. 14603.** Telephone: 716-473-4080, extension 368.

## MOLECULAR BIOLOGISTS

Research and Development of Phillips Petroleum Company is looking for experienced molecular biologists for its expanding Biotechnology Group.

The following background and experience is needed: M.S. and Ph.D. in Molecular Biology, Biochemistry or Microbiology with emphasis in expression of cloned genes in yeast, *E. coli*, and gram positive bacteria. Laboratory experience in the following areas is desired: DNA sequencing, cloning, gene expression, protein chemistry including isolation and purification of proteins.

Phillips Research Center is located in Bartlesville, Oklahoma, a mid-western community which provides excellent cultural, educational, and recreational pursuits. Phillips Petroleum Company also offers an excellent salary and benefits package.

Inquiries are kept in strict confidence and answered promptly. Please send resume with salary history to (no agency referrals please):

Jeannie E. Spain  
**Phillips Research Center**  
 Bartlesville, OK 74004



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## sunGene

## PLANT CELL AND MOLECULAR BIOLOGISTS

Sungene Technologies Corporation is seeking experienced scientists with training in the following areas:

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Excellent salaries, benefits and equity participation are offered.

Please send resume and references to:

**Ernest T. Hubbard, Vice President of Research**  
**Sungene Technologies Corporation**  
 3330 Hillview Avenue  
 Palo Alto, CA 94304

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At MRI our research spans such fields as energy, materials, chemical, biological and life sciences.

## SENIOR PATHOLOGIST

An exciting opportunity exists to supervise our Pathology section at MRI with responsibility for supervising and implementing diagnostic pathology, histopathology, histology and necropsy. The successful candidate will act as pathologist and/or study director on studies, and develop and expand pathology research programs.

The candidate we seek will hold a DVM and Ph.D. in Pathology with ACVP certification in veterinary pathology. This position requires professional experience in reading subchronic and chronic studies, with previous supervisory experience in histology, histopathology and necropsy. Experience with IND/NDA studies, cytochemistry and special staining techniques and responsibility as study director is an asset.

MRI offers excellent laboratory facilities, an interdisciplinary focus, growth opportunity, competitive compensation and benefits, and paid relocation. Our Kansas City location offers excellent cultural, academic and recreational opportunities. Respond today by sending a resume and salary history to Mr. Larry Brown at:

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## POSITIONS OPEN

### BIOMEDICAL RESEARCH: CARCINOGENESIS

Two postdoctoral positions are available in Dr. E. Huberman's Gene Expression and Mutagenesis Group, Division of Biological and Medical Research, Argonne National Laboratory.

Successful applicants will participate in studies on the various biological alterations expressed during the process of carcinogenesis. Research focuses on cellular and molecular events associated with the induction of cell transformation and differentiation in cultured mammalian cells by chemical agents. Experience in one of the above areas is preferred.

Qualified applicants must have received their doctorate within 3 years of the appointment. Salary is commensurate with experience.

Applications should include curriculum vitae and the names of three references. They should be forwarded to: **Rosalie Bottino, Box D-BIM-55, Personnel Division, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, Ill. 60439.**

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**POSTDOCTORAL POSITIONS (TWO)** available immediately for studies investigating regulation of cell ionic transport and cell volume combining electron probe, video recording, electrophysiological and microfluorescence techniques. Background in biophysics and cell culture is desirable. Send curriculum vitae and three references to: **Dr. Claude Lechene, Department of Physiology and Biophysics, Harvard Medical School, 221 Longwood Avenue, Boston, Mass. 02115.**

**POSTDOCTORAL RESEARCH ASSOCIATE** available immediately to study the structure and function of nucleolar nonribosomal, nonhistone proteins. Projects include (i) structural studies on putative nucleolar organizer proteins, (ii) molecular cloning of genes for nucleolar phosphoproteins, and (iii) studies on protein-DNA and protein-protein interactions. Experience in nucleic acids and/or protein chemistry desirable. Salary: \$15,344 to \$18,602. Send curriculum vitae to: **Dr. Mark Olson, Department of Biochemistry, University of Mississippi Medical Center, 2500 North State Street, Jackson, Miss. 39216. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL RESEARCH ASSOCIATE** position for a Ph.D. in biochemistry to collaborate with a principal investigator on function of cell surface complex carbohydrates and structural analysis of oligosaccharides is available November 1983 for 1 year with possible renewal. Send curriculum vitae and names of three references to: **Dr. David F. Smith, Department of Biochemistry and Nutrition, Virginia Polytechnic Institute and State University, Blacksburg, Va. 24061. An Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION IN CARDIAC ELECTROPHYSIOLOGY** available 1 September 1983 to study membrane currents and mechanisms of antiarrhythmic drug action in myocardial cells using voltage clamp techniques. Previous experience in intracellular microelectrode recording and computer analysis desirable. Send curriculum vitae to: **Dr. T. J. Colatsky, Cardiovascular Pharmacology, Wyeth Laboratories, Box 8299, Philadelphia, Pa. 19101.**

### MENTAL RETARDATION RESEARCH CENTER AT UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA)

Postdoctoral research positions are available to join a multidisciplinary group studying neurophysiology, neuroanatomy, neuropharmacology, and neurobehavioral relationships in developing and adult mammalian CNS under the supervision of Nathaniel Buchwald, Chester Hull, Michael Levine, Anthony Adinolfi, Jennifer Buchwald, John Garcia, Meyer Jackson, Charles Woody, Jaime Villablanca, and Stefan Soltysik.

Neurobiochemistry postdoctoral research positions available for studies on brain cell development, interaction, function and metabolic substrates, cell organelle biogenesis, and characterization and diagnosis of human enzyme deficiencies under the supervision of Jean deVellis, John Edmond, Stephan Cederbaum, and Leonard Rome.

Developmental biology, neuropharmacology, and genetics postdoctoral research positions available for studies of laboratory and/or computer analyses of human gene mapping, somatic cell genetics, gene regulation and expression, and cytogenetic research under the supervision of Anne Spence, Barbara Crandall, Robert Sparkes, James McGinnis, Susan Hodge, and Sherrel Howard.

Stipends consistent with NIH guidelines. Send curriculum vitae and three letters of reference to: **Director of Training, Mental Retardation Research Center, UCLA, 760 Westwood Plaza, Los Angeles, Calif. 90024. UCLA is an Equal Opportunity/Affirmative Action Employer.**

Scripps Institution of Oceanography invites applications for the position of **POSTGRADUATE RESEARCHER THROUGH ASSISTANT RESEARCHER**. Appointment as assistant researcher requires a publication record. The position is in the Upper Ocean Physics Group of the Marine Physical Laboratory. Active research areas include air-sea interaction, internal wave and mixed layer studies, as well as Doppler acoustic sensor design. Candidates should have a Ph.D. in oceanography, physics, or engineering, as well as experience and a desire to participate in field research. Salary range: \$15,936 to \$26,800. Send curriculum vitae and names of references to: **Professor Robert Pinkel, Marine Physical Laboratory, Scripps Institution of Oceanography, University of California, San Diego, La Jolla, Calif. 92037. Closing date: 9 September 1983. The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer.**

### PRE- AND POSTDOCTORAL POSITIONS ENVIRONMENTAL PATHOLOGY/ TOXICOLOGY

Applications invited in environmental pathology/toxicology. Research emphasis on molecular and morphologic effects of toxic substances, especially biotransformations and respiratory pathophysiology. Applicants must be U.S. citizens or permanent residents. Send résumé, three letters of reference, and research interest to: **N. Karle Mottet, M.D., Professor, Pathology and Environmental Health, SM-30, University of Washington, Seattle, Wash. 98195. An Equal Opportunity/Affirmative Action Employer.**

**RESEARCH ASSOCIATE:** Interested in making viruses in vitro? Postdoctoral position in an established laboratory studying the morphogenesis of animal viruses. Applicants should have a Ph.D. in biochemistry/microbiology. Virology experience helpful but not necessary. Send curriculum vitae and names of two references to: **Dr. Bruce A. Phillips, Department of Microbiology, University of Pittsburgh, School of Medicine, Pittsburgh, Pa. 15261.**

**RESEARCH ASSOCIATE.** Position available immediately for studies on the purification and biochemical characterization of placental and pituitary protein hormones. Experience in column chromatography, electrophoresis, and radioligand assays required. Submit curriculum vitae and three letters of recommendation to: **Dr. Frank Talamantes, Thimm Laboratories, University of California, Santa Cruz, Calif. 95064. An Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

**RESEARCH ASSISTANT PROFESSOR OF BIOCHEMISTRY.** The University of Kentucky is seeking a research assistant professor to design and synthesize protease inhibitors. A Ph.D. in organic synthesis is required with two or more years of postdoctoral experience in organic synthesis, organic reaction mechanisms, or enzyme mechanisms. Send résumé and the names and addresses of three references, postmarked no later than 1 October 1983, to: **Richard E. Galaray, Department of Biochemistry, University of Kentucky, Lexington, Kentucky 40536-0084. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer.**

**RESEARCH ASSOCIATE—**Conduct research in the area of regulation in gene expression in *Escherichia coli*. The work requires enzyme purification and assay, genetic mapping, use of gene fusion techniques, and restriction mapping.

Requirements include Ph.D. in microbiology or biochemistry, or equivalent, and 4 years of research experience with strong background in bacterial physiology and special metabolism; the use of radioactive compounds for tracing metabolism; enzyme purification; isolation of metabolites; group control of gene expression; cloning of genes; and bacterial gene mapping.

Salary: \$19,500 per year, 35 hours per week.

Send résumé to: **Job Order Number 3529-M, Division of Employment Security, Hurley Building, Government Center, Boston, Mass. 02110.**

**RESEARCH ASSOCIATE IN LASER PHYSICS.** Mount Sinai Medical Center, Miami Beach, Florida, is seeking applications from individuals with expertise in laser physics who are interested in the application of laser technology to the medical profession. Individuals should have Ph.D. in physics or engineering and will be expected to work closely with qualified physicians to develop new surgical techniques using laser systems. Responsibilities include coordination of the laser research program and participation in teaching seminars. Interested candidates should submit curriculum vitae (including a summary of research interests) and three letters of reference to: **Dr. David Russin, Chairman, Laser Research Recruitment Committee, Department of Research, Mount Sinai Medical Center, Miami Beach, Florida 33140. An Equal Opportunity/Affirmative Action Employer.**

**RESEARCH ASSOCIATE.** Major suburban New York medical center seeks Ph.D. (pharmacology or biochemistry) with 2 years of postdoctoral training for nephrology research program. Experience in hypertension, renal physiology, and responsible independent research work as demonstrated by publications/grant sponsorship desirable. Position includes experimental design analysis, laboratory management, and manuscript/grant writing. Salary commensurate with experience. Respond by sending résumé only to: **Box 228, SCIENCE.**

**RESEARCH BIOCHEMIST.** Ph.D. position available as key scientist in program on thyroid hormone action at cell level. Requisites include protein fractionation procedures, thyroid physiology, experience with mitochondrial oxidative phosphorylation, and photo-affinity labeling, if possible. Salary: about \$35,000, depending on experience. Send résumé to: **Dr. Kenneth Sterling, VA Medical Center, 130 West Kingsbridge Road, Bronx, N.Y. 10468.**

**SYSTEMIC AND ENVIRONMENTAL PHYSIOLOGIST.** The Department of Animal Physiology at the University of California, Davis, invites applications for an assistant professor, the level depending on background and experience. This is an 11-month, full-time tenure-track appointment. Minimum qualifications include a Ph.D. in systemic/environmental physiology and a demonstrated ability to conduct high-quality, independent, and original research in any area of systemic/environmental physiology. The successful applicant will be expected to contribute to the department's teaching and advising program in systemic and environmental physiology for undergraduate and graduate students. Applicants should submit curriculum vitae, bibliography, recent reprints, transcripts (if Ph.D. conferred within last 5 years), and the names and addresses of at least three references to: **Chair, Systemic/Environmental Physiologist Search Committee, Department of Animal Physiology, University of California, Davis, Calif. 95616. Closing date for receipt of applications is 15 October 1983.**

*The University of California is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.*



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We're looking for a dynamic individual to manage project design and implementation related to large-scale tissue culture methodologies. A Ph.D. in Cell Biology, Immunology, Biochemistry or a related field, with Post-Doctoral experience and background in mammalian tissue culture is preferred. Familiarity with defined culture media and novel culture methods will be an asset. Eventual responsibilities will include all phases of cell production, screening and propagation.

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## POSITIONS OPEN

**RESEARCH ASSISTANT** for 2-year ecological study beginning 1 October 1983. B.S. required, M.S. preferred. Marine and/or freshwater taxonomy, statistics, and communication skills required. Send curriculum vitae with references to: **Dr. Larry DeRouen, McNeese State University, P.O. Box 1468, Lake Charles, La. 70609.** *McNeese State University is an Affirmative Action/Equal Opportunity Employer.*

**RESEARCH SPECIALIST III** to study the mechanisms that control regional cerebral  $O_2$  consumption and microcirculation during  $O_2$  supply stress (cerebral ischemia, hypnosis, aging) under the direction of Harvey R. Weiss, Ph.D., Director, and Ellen Buchweitz, Ph.D., Heart and Brain Circulation Laboratory. Minimum requirements are master's degree in a relevant science plus 1 year of experience in research concerning the control of cerebral oxygen supply and demand. Preference will be given to applicants with Ph.D. and advanced training in neurosciences and/or cerebral blood flow research. Send curriculum vitae and names of three references to: **Gwen Doyle, Personnel Department (P-140), UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY-Rutgers Medical School, P.O. Box 101, Piscataway, New Jersey 08854.** *An Equal Opportunity/Affirmative Action Employer, M/F.*

## QUIDEL

A biotechnology company in the forefront of immunological and recombinant DNA research is recruiting a Ph.D. staff scientist or highly experienced research associate (M.S. or B.S.) with a strong background specifically in tumor cell biology and/or tumor immunology. The successful candidate will work on the development of human hybridomas to be used in the diagnosis and treatment of disease.

QUIDEL is an actively growing, dynamic company located in La Jolla, California, close to three major research centers. We offer highly competitive salaries and benefits. For consideration, please send detailed curriculum vitae to: **Bonnie L. Elbik, Director of Personnel, QUIDEL, 11077 North Torrey Pines Road, La Jolla, Calif. 92037.** *Affirmative Action/Equal Opportunity Employer.*

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## EXCHANGE PROGRAM

The Committee on Scholarly Communication with the People's Republic of China (CSCPRC) announces opportunities under the **Graduate, Research, and Distinguished Scholar Exchange Programs** with the PRC for advanced graduate students and postdoctoral scholars, and senior scholars, in the natural sciences, engineering, social sciences, and humanities for 1984-1985. These programs make possible long-term study and research or short-term lecturing and exploratory visits at Chinese universities and research institutes. *Application is open to citizens and permanent residents of the United States regardless of national origin, sex, or religious affiliation.* Nominations by U.S. institutions of leading Chinese scholars will also be considered under the Distinguished Scholar Exchange Program. The number of grants depends on available funding. Application should be made to the Graduate Program, the Research Program, or to the Distinguished Scholar Exchange Program. Inquiries should be addressed to: **The CSCPRC, National Academy of Sciences, 2101 Constitution Avenue, NW, Washington, D.C. 20418.**

Postmark/mailling deadline for applications: 7 November 1983.

## TRAINING PROGRAMS

### POSTDOCTORAL TRAINING PROGRAM IN REPRODUCTIVE ENDOCRINOLOGY

NIH-supported, interdepartmental training program for those wishing to obtain experience in application of biochemical techniques to the study of reproductive hormones and diseases. Special areas of faculty interest include mechanisms of action of peptide hormones, receptor biochemistry, structure-function studies on glycoprotein hormones, hormonal regulation of human endometrium, effects of prolactin, and related topics. Candidates with doctoral degrees (M.D., Ph.D., D.V.M.) and a strong preparation in biochemistry preferred. Applicants (U.S. citizen or permanent residents only) should submit résumé, graduate transcript, and three letters of recommendation to: **Dr. L. E. Reichert, Director, Training Program in Reproductive Endocrinology, Department of Biochemistry, Albany Medical College, Albany, New York 12208.**

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### CAREER CHANGE OPPORTUNITY

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## FELLOWSHIPS

### POSTDOCTORAL FELLOWSHIP

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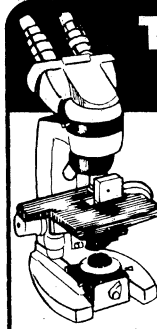
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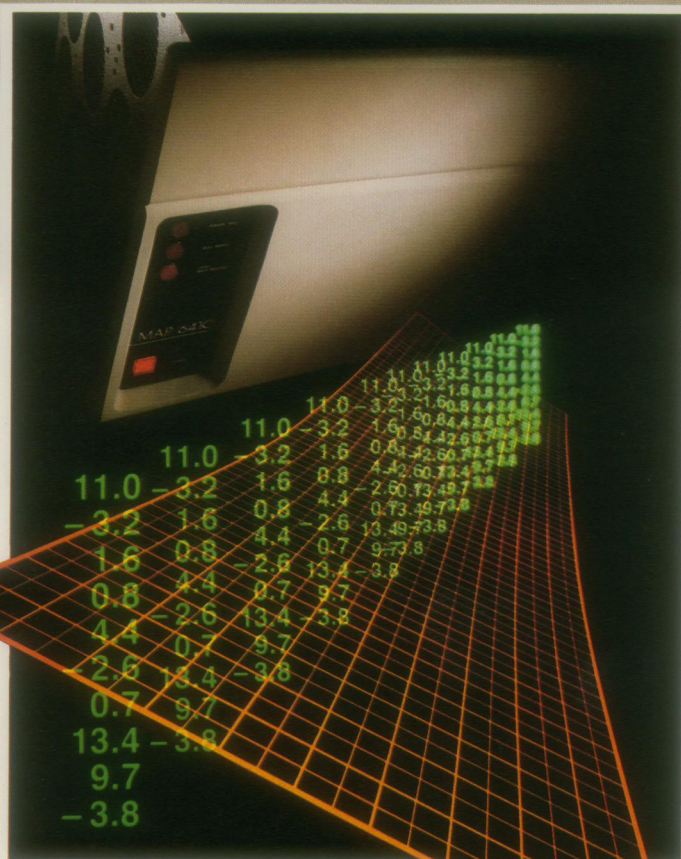
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