



Vector Processing Software

A vector processing software package simulates the SKYMNK array processor. The simulator, called MNKSIM, runs on PDP-11 and LSI-11 systems using RT-11 or RSX11-M. MNKSIM is a vector subroutine library that provides for vector and scalar mathematics along with signal processing functions such as fast Fourier transform, convolution-correlation, digital filtering, and others all under control of user FORTRAN software. The simulator has a variety of uses including software development, demonstration and instruction in mathematical applications, and as a tutorial on vector processing operations. Sky Computers. Circle 584.

Micro-Analog to Digital Converter

Model 811 plugs directly into an Apple II microcomputer and allows it to function as a multichannel analyzer. It is available in 256-, 512-, 1024-, and 2048-channel configurations. This device reduces interfacing problems, expenses, and time required for use of separate multichannel analyzers. Multichannel analyzer programs and special software for electron-excited microanalysis are available. The Nucleus. Circle 586.

Database Management

LOGIX provides for integrated interactive and programmatic database management for UNIX systems. User may define relations, enter and edit data, create new relations, and select items from a relation. Items may be marked with a

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date and time stamp; in case of subsequent discovery of error, the relation may be "rolled back" to a time before the error was entered. The Q programming language is provided in three dialects. SelectQ is an interactive query language; QuickQ is an interpretive query language that adds control statements and output format statements for reports; CompiledQ is a language compiler to optimize queries for data management. Logical Software. Circle 581.

Color Graphics Terminal

The AED 767 is a full-color raster graphics terminal. It features integral anti-aliasing that operates during drawing. Images appear on the screen without delays required by separate anti-aliasing processing by the host computer. This ensures rapid rendering of sharp screen images with superior resolution of detail. The AED 767 offers 1K by 1K by 8 virtual address space with a 768 by 575 viewing window. A variable-intensity blue-line reference grid, ellipse and arc generators, and stipple-filled rectangle and polygon-fill functions are some other special features. Advanced Electronics Design. Circle 587.

Image Analyzer

MOP 30 is a digital device for the determination of dimensional data from images. Simplicity, accuracy, and speed of the original MOP 3 are augmented in MOP 30 to accommodate additional geometric parameters and to provide for stereologic calculations and standard statistics including histogram printouts by pushbutton. Integral printer and RS 232 serial interface render MOP 30 easily matrixed with other data processing hardware and systems. Its precision measuring tablet utilizes many image media including photographs, transparencies, prints, projections, and light and electron microscopic images. Carl Zeiss. Circle 582.

Scientific Data Station

The VideoChart Recorder acquires, manipulates, and displays data from chromatographs, spectrometers, x-ray analyzers, and other instruments. The functions of a chart recorder, area integrator, and scientific calculator are combined with a real-time, joystick-operated, graphic-number video display that requires minimum training to operate. User may read data and run identification number to or from computer-compatible storage in standard ASCII code through VideoChart's RS232 C input-output option to monitor, test, verify, or compare live, stored, or processed data. Hard copy is available from standard PLOT and video copier output or from instant screen photographs. Instrumentation Graphics. Circle 583.

Software for Symbolic Processing

Symbolics Software describes the programming environment of the LM-2 and 3600 Symbolic Processing Systems. User interfaces are discussed including the window system (which manages the bit-mapped display), the file system, the text editor, the mail reader, and other interactive elements. On these devices both system and user programming is done in Zetalisp, a dialect of Lisp derived from MIT's Maclisp. Language features and programming tools are described thoroughly. All software described is fully operational; it has been tested and improvements have been included as they have been suggested. Symbolics. Circle 585.

Floppy Disk Drives

Models 41 and 42 drive 8-inch disks and they are only 2 inches tall. They offer capacities from 400 kilobytes (single-sided, single-density) to 1.6 megabytes (double-sided, double-density). Track-to-track access time is 3 milliseconds; total average access time is 83 milliseconds. Transfer rates for double-density drives are 500 kilobits per second and 2650 kilobits per second for single-density drives. These drives have a standard MPI interface. Industry standard 850-type interfacing is optional. Encoding methods FM, MFM, or M²FM may be specified. A data operator and a hard-sector separator are optional. Other options include front bezels, track 43 sensing, a door-closed switch, and provision for rack mounting. Micro Peripherals. Circle 588.

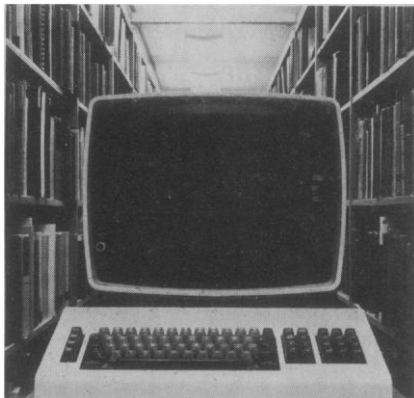
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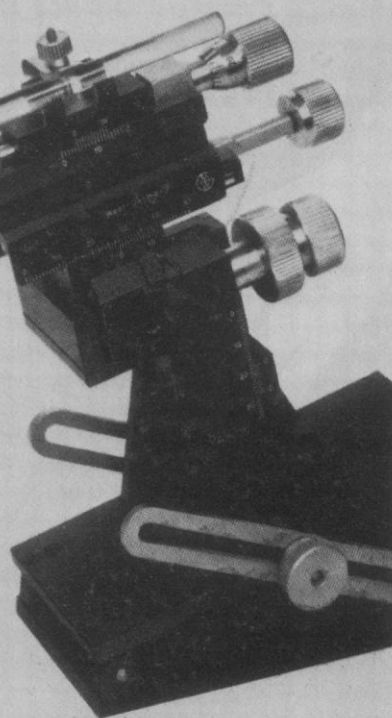
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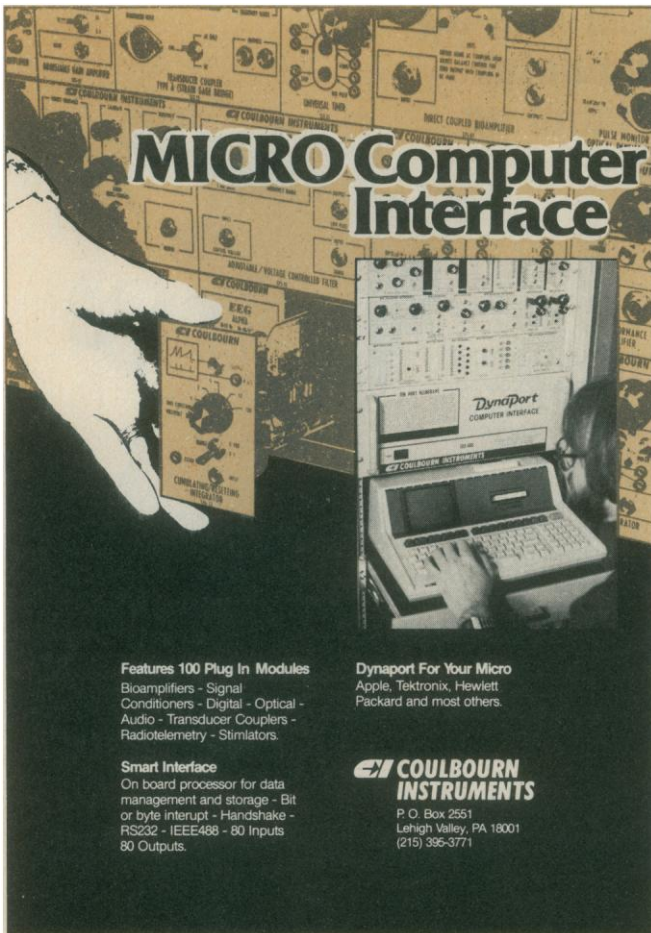
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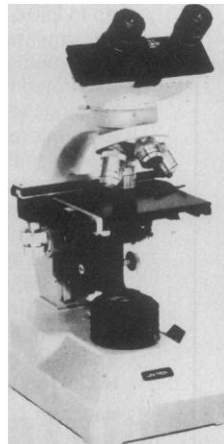
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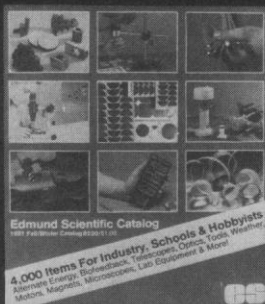
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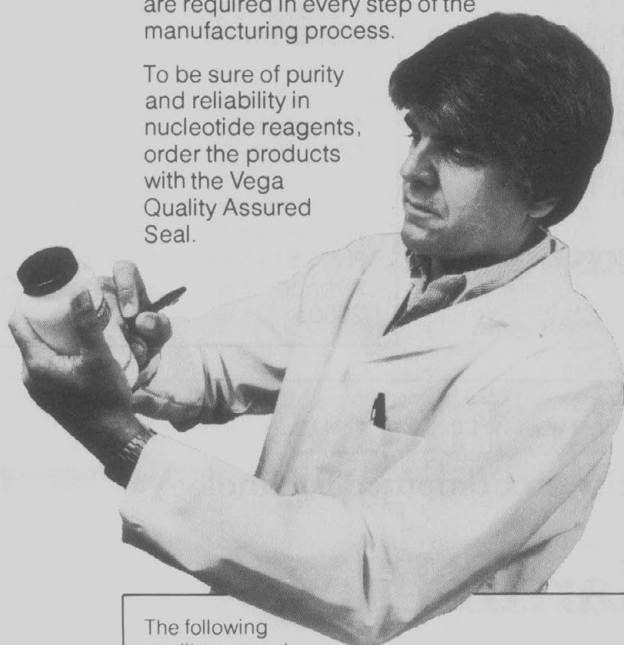
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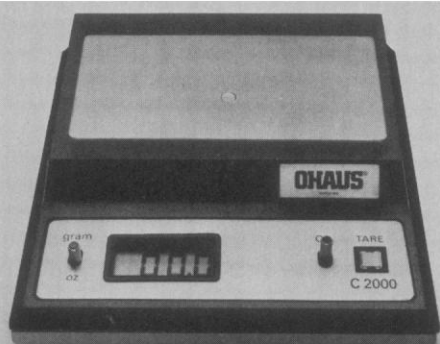
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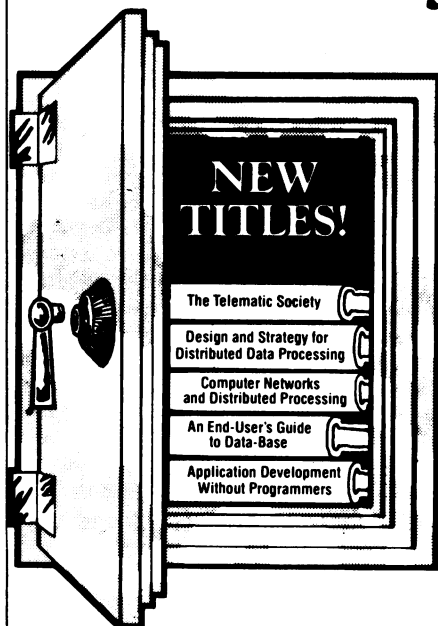
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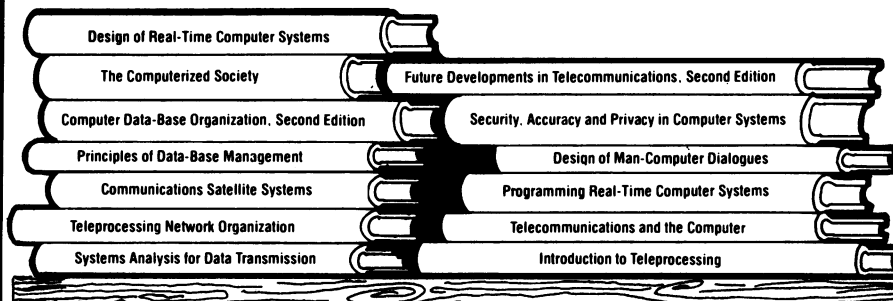
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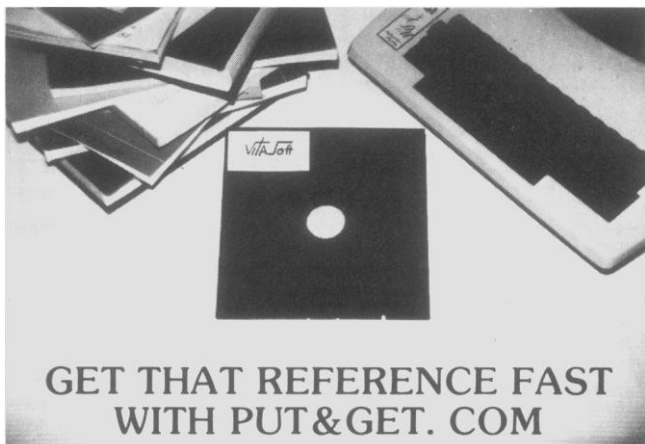
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POSITIONS OPEN

ASSISTANT PROFESSOR. Tenure-track position in a small college environment. Specialty in one or more of the following areas: developmental biology, plant physiology, neurophysiology, and general physiology. Ph.D. required. Send curriculum vitae and arrange for three letters of reference to be sent to: **Dr. Michael Danciger, Department of Biology, Loyola Marymount University, Los Angeles, Calif. 90045.** Closing date for applications is 19 March 1982. *Equal Opportunity Employer.*

The University of South Florida College of Medicine, Department of Pharmacology and Therapeutics, invites applications for a tenure-track position as an **ASSISTANT/ASSOCIATE PROFESSOR** available 1 July 1982. Salary (\$25,000, negotiable) is dependent on rank, previous history, and qualifications. Applicants will be expected to participate in teaching of medical and graduate students. There must be evidence of research potential and productivity in the area of immunopharmacology. Applicants should send three letters of recommendation, current curriculum vitae, and a summary of research orientation to: **Dr. J. Krzanowski, Vice Chairman, Department of Pharmacology and Therapeutics, College of Medicine, University of South Florida, Tampa, Florida 33612.** Deadline for application is 1 March 1982. *The University of South Florida is an Equal Opportunity/Affirmative Action Employer.* In accordance with the state constitution, applications are a matter of public record.

ASSISTANT OR ASSOCIATE PROFESSOR—RESEARCH PLANT GENETICIST. University of Idaho, Moscow. Position is 75 percent research and 25 percent teaching. Individual will be expected to initiate a program to facilitate the deployment of recently developed technology in chromosomal engineering, genetic engineering, cytoplasmic enzymes, doubled haploid techniques, or other areas into existing plant-breeding programs. This individual will be expected to teach one undergraduate and at least one graduate-level class in field of expertise. A Ph.D. in genetics and experience in molecular biology of higher plants is required. Deadline for applications and receipt of supporting material is 15 March 1982 or may be extended. Contact: **Dr. Gary Lee, Head, Department of Plant and Soil Sciences, University of Idaho, Moscow, Idaho 83843.**

The University of Idaho is an Equal Opportunity/Affirmative Action Employer and educational institution.

ASSISTANT PROFESSOR OF BIOENGINEERING

The Department of Bioengineering of the University of Pennsylvania has an open tenure-track position for an assistant professor in the area of dental bioengineering. The Center for Dental Bioengineering, a joint entity of both the School of Engineering and Applied Science and the School of Dental Medicine, is engaged in research on: (i) chemical sensing and related diagnostic techniques; (ii) dental robotics with emphasis on computer-aided design; (iii) dental biomechanics, including studies of tooth support and jaw function; and (iv) dental instrumentation, for example, ultrasonics and infrared imaging. Candidates should have research interest in these or related topics and be prepared to teach both graduate and undergraduate engineering courses. A Ph.D. in bioengineering or closely related discipline is required. One to 2 years of experience in dental bioengineering is desirable. Qualified applicants should submit their résumé to: **Professor M. Litt, Acting Chairman, Bioengineering Department and Director, Center for Dental Bioengineering, University of Pennsylvania, 285 Towne Building/D3, Philadelphia, Pennsylvania 19104.**

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

ASSISTANT PROFESSORS—BIOLOGY AND CHEMISTRY, MONTCLAIR (NEW JERSEY) STATE COLLEGE.

The School of Mathematics and Natural Sciences invites applications (Ph.D. required) for two tenure-track assistant professorships, beginning 1 September 1982. The biology applicant should have a Ph.D. in biology with training in anatomy, physiology, and microbial genetics. The chemistry applicant should have a Ph.D. in analytical chemistry. Send curriculum vitae, transcripts, and three letters of recommendation by 1 March 1982 to: **Professor Ronald Flynn, Box C224, V-3, Montclair State College, Montclair, N.J. 07043.** *An Equal Opportunity/Affirmative Action Institution.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY. Full-time, tenure-track position to be filled by September 1982 in small liberal arts college in western Virginia. Preference will be given to candidates with the doctorate and with postdoctoral or teaching experience. Excellence in teaching and research expected. Comparative vertebrate zoology and animal behavior. Send curriculum vitae and names of three references by 16 April 1982 to: **Dr. Thomas G. Nye, Department of Biology, Washington and Lee University, Lexington, Virginia 24450.**

ASSISTANT PROFESSOR OF BIOLOGY

A full-time, tenure-track faculty position opening in the Science Division. Teaching advanced biology courses, including biochemistry and introductory chemistry courses as assigned on a rotation basis, in the area's department. Also would manage the Medical Technology Program offered by the college. A Ph.D. in cell biology/biochemistry, including a significant background in chemistry, is required and teaching experience is preferred. Appointment date will be September 1982. Send letter of application, detailed résumé, and names of three references by 26 February 1982; however, the search will remain open until the position is filled. Please send all materials to:

**Dianna B. Lammert
Director of Personnel
Maryville College—St. Louis
13550 Conway Road
St. Louis, Missouri 63141**

Affirmative Action/Equal Opportunity Employer

DEPARTMENT OF PHARMACOLOGY HARVARD MEDICAL SCHOOL

Two assistant professorships in the Department of Pharmacology, Harvard Medical School, are available. Both positions could be filled by July 1982. Research interests should be concerned with molecular mechanisms of the regulation of cellular function. Examples of areas of interest include virus-cell and drug-receptor interactions. The precise area of interest, however, is not as important as the approaches brought to the problem which should have a strong molecular orientation. Interested candidates should send curriculum vitae, bibliography, and names of three references to: **Chairman, Search Committee, Department of Pharmacology, Harvard Medical School, 250 Longwood Avenue, Boston, Mass. 02115.** *Harvard University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT SCIENTIST—A full-time, 40-hour-per-week position performing research into agonistic and social behavior of nonhuman primates. Minimum requirements are Ph.D. in biology; postdoctoral experience with behavioral observation of both macaques and chimpanzees in large social groups; fluency in French and German languages. Experience with conduct of research in a zoo setting is valuable. Salary: \$25,000 annually. This ad not paid from Job Services funds. Send curriculum vitae and references by 31 March 1982 to: **Sath Menon, Wisconsin Job Services, 206 North Broom Street, Madison, Wis. 53703.** Telephone: 608-266-2341. *An Affirmative Action/Equal Opportunity Employer.*

STATE UNIVERSITY OF NEW YORK (SUNY) COLLEGE AT OLD WESTBURY

Small, 4-year, liberal arts college on Long Island with heterogeneous, nontraditional student body and strong tradition of social criticism and pedagogical innovation, seeks candidates for the following position:

BIOLOGY FACULTY: One full-time, tenure-track appointment at the assistant or associate professor rank. Must be qualified to teach undergraduate courses in cell biology/molecular biology and general biology. Ph.D. required. Demonstrated teaching excellence and research background required. Candidate should demonstrate the ability and willingness to teach students with a broad range of cultural, ethnic, and academic backgrounds. Rank and salary dependent on qualifications and experience. Starting date: 1 September 1982. Deadline for applications: 28 February 1982. Send résumés to:

**Director of Affirmative Action
Search Committee BS/C
SUNY/College at Old Westbury
Old Westbury, N.Y. 11568**

DIRECTOR SCIENCE DIVISION

Harbor Branch Foundation, Inc.

Applications are invited for the position of **DIRECTOR OF SCIENCE** starting 1 June at the Harbor Branch Foundation, Inc., a not-for-profit corporation established primarily for research in the marine sciences and for the development of tools and systems for underwater oceanographic research. The successful candidate is expected to oversee the development and coordination of ongoing interdisciplinary research programs in lagoonal, shelf, and open ocean marine science, involving both shipboard and manned and unmanned submersible operations; to prepare and administer a science budget; to coordinate Science Division activities with those of two other divisions, Engineering and Marine Operations; to communicate with other institutions and agencies related to Harbor Branch programs; to assist with the procurement of outside funding; and to develop and execute special projects and programs as directed by the managing director and/or the Planning Committee.

Candidates must have an earned doctorate in a marine-related science, a distinguished research record, demonstrated administrative skill, and an ability to provide effective leadership for a staff of 12 principal investigators and 30 support staff.

Applicants must submit a formal letter of application, complete curriculum vitae, three letters of recommendation, and supporting materials by 15 April to:

**Dr. Kevin J. Eckelbarger
Chairperson, Search Committee
Harbor Branch Foundation, Inc.
R.R. 1, Box 196
Fort Pierce, Florida 33450**

Harbor Branch Foundation, Inc., is an Equal Opportunity Employer.

SEARCH REOPENED DIRECTOR OF ADMINISTRATION FOR ORGANISMIC AND EVOLUTIONARY BIOLOGY AND ALLIED INSTITUTIONS

Reporting to the dean of the Faculty of Arts and Sciences, the director will assist the department chairman and Allied Institutions directors in interfacing the Department of Organismic and Evolutionary Biology with the Allied Institutions, including the Botanical Museum, Bussey Institution, Farlow Herbarium and Library, Gray Herbarium, Museum of Comparative Zoology, and Cambridge segment of the Arnold Arboretum. The director will oversee all administrative services, such as accounting and purchasing, for the institution operating budgets and for research grants; will be responsible for management and operation of Allied Institutions buildings, including space occupied by natural history collections, experimental laboratories, offices, libraries, and exhibit areas open to the public; and will assist in planning and implementing renovations to this space. She/he will serve as a resource in the preparation of federal and private grant applications for research and for collection improvement, and will explore new avenues for such support.

The buildings of the Allied Institutions are contiguous with each other and with the Biological Laboratories. They house approximately 35 faculty, 70 graduate students, and 80 support staff, and have a combined annual budget of approximately \$5,600,000 in university and sponsored research funds.

Candidates should have a degree in some aspect of biology and at least 3 years of experience in science administration. Knowledge about the problems of systematic biology and management of natural history collections is desirable.

Applicants should submit curriculum vitae and have three letters of reference sent to: **Robert M. Woollacott, The Biological Laboratories, Harvard University, Cambridge, Mass. 02138,** before 15 March 1982.

Harvard University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

Applications are invited for a tenure-track position of **ASSISTANT PROFESSOR OF PHYSIOLOGY**. Three to 4 years of postdoctoral experience desired. Candidate is expected to maintain a vigorous independent research program. Research interest in metabolic and endocrine aspects of cardiopulmonary or renal physiology is preferable. Send curriculum vitae and names of three references to: **John J. Spitzer, M.D., Professor and Head, Department of Physiology, Louisiana State University Medical Center, 1901 Perdido Street, New Orleans, La. 70112. An Equal Opportunity/Affirmative Action Employer.**

Applications are invited for a tenure-track position of **ASSISTANT PROFESSOR OF PHYSIOLOGY**. Candidate is expected to maintain a vigorous and independent research program. Interest and/or experience in physiologic aspects of dental medicine essential. Research activities in calcium metabolism, neuro- or skeletal muscle physiology, or neuroendocrinology are favored. Send curriculum vitae and names of three references to: **John J. Spitzer, M.D., Professor and Head, Department of Physiology, Louisiana State University Medical Center, 1901 Perdido Street, New Orleans, La. 70112. An Equal Opportunity/Affirmative Action Employer.**

TENURE-TRACK OPENING IN BIOCHEMISTRY at Illinois Wesleyan University (IWU). This appointment is an entry-level position for a biochemist with a strong background in organic chemistry. Organic majors with strong biochemistry will also be considered. IWU is an undergraduate-only university of 1650 students with an ACS-accredited Chemistry Department with four full-time members. By 15 March, send résumé and transcripts and have three letters of recommendation sent to: **Dr. David N. Bailey, Department of Chemistry, Illinois Wesleyan University, Bloomington, Ill. 61701. IWU is an Equal Opportunity Employer.**

BIOLOGIST—Specialist/laboratory instructor available September 1982. Responsibilities include the laboratory component of an integrated two-semester human physiology and anatomy course for allied health students. It would be helpful if candidates also can teach laboratories in introductory biology. Minimum qualifications: master's degree and some teaching experience. Send résumé, transcripts, and three letters of reference within 3 weeks of the publication of this notice to:

**Coordinator, Life Science Department
University of Wisconsin-Parkside
P.O. Box 2000**

Kenosha, Wisconsin 53141

Telephone: 414-553-2327

An Equal Opportunity/Affirmative Action Employer

THE UNIVERSITY OF KANSAS Pharmaceutical Chemistry Department Department Chair with Distinguished Professorship

The University of Kansas invites nominations and applications for the position of departmental chairperson and distinguished professor in the Department of Pharmaceutical Chemistry. The department has traditionally emphasized pharmaceuticals, as well as analytical and pharmaceutical chemistry.

The individual who fills this position will have an international reputation in basic pharmaceuticals with interests in closely allied disciplines.

The successful candidate will:

- Evidence a strong research commitment in the chemical or biological sciences which relate to pharmaceuticals;
- Have successful experience in attracting research funding and in developing new funding opportunities in collaboration with other faculty;
- Be firmly committed to graduate and undergraduate education; and
- Demonstrate skills in administering research and/or academic units and budgetary resources.

This position will be available 1 July 1983. Applications and nominations received by 15 April 1982 will be given first consideration.

**Delbert M. Shankel, Chairman
Pharmaceutical Chemistry Chairman
Search Committee
The Office of Academic Affairs
The University of Kansas
Lawrence, Kansas 66045**

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

POSITIONS OPEN

ASSISTANT PROFESSOR—VERTEBRATE BIOLOGIST. To begin fall 1982. Teaching, research, and responsibility for curating major Neotropical bird collection. Research areas: evolution, behavior, biometrics, population genetics, or ecology. Teaching load: one laboratory course or two lecture courses per term. Send curriculum vitae with publications, papers presented, research and teaching interests, and three letters of recommendation to: **Dr. M. L. Morton, Biology Department, Occidental College, Los Angeles, California 90041. An Affirmative Action/Equal Opportunity Employer.**

BIOCHEMISTS—MOLECULAR BIOLOGISTS

Tenure-track faculty positions at assistant and associate professor levels. Candidates should be interested in developing strong and independent research with long-term growth potential on the mechanisms of gene expression at the molecular level in either prokaryotic or eukaryotic systems. This area may be interpreted broadly from chemical-physical to genetic interests. Teaching includes medical, dental, and graduate students at sizable and rapidly expanding medical complex. Biochemistry department with excellent new facilities is undergoing substantial expansion. Salary commensurate with experience and competitive. Curriculum vitae, brief statement of present and future research interests, and three letters of recommendation should be sent to: **Dr. Robert D. Wells, Chairman, Department of Biochemistry, University of Alabama—Birmingham, Schools of Medicine and Dentistry, University Station, Birmingham, Alabama 35294. An Equal Opportunity/Affirmative Action Employer.**

BIOCHEMISTRY/MICROBIOLOGY

Applications are invited for four faculty positions available 1 July 1982. Candidates must have a Ph.D. or equivalent degree. Position descriptions are as follows. Two positions in biochemistry, both requiring broad-based training with subspecialty in either renal and pulmonary regulation of acid-base balance or purine/pyrimidine and nucleic acid and protein biosynthesis. Two positions in microbiology, both requiring preparation to teach a variety of topics in medical microbiology. Research interests are open. Rank and salary dependent upon qualifications. Teaching responsibilities may involve medical, podiatric, and physicians assistant training programs. Send curriculum vitae and names of three references to: **William J. Dyche, Ph.D., Associate Dean of Pre-Clinical Affairs, University of Osteopathic Medicine and Health Sciences, 3200 Grand Avenue, Des Moines, Iowa 50312. Equal Opportunity Employer.**

CELL PHYSIOLOGIST DIVISION OF BIOLOGICAL SCIENCES College of Agriculture and Life Sciences CORNELL UNIVERSITY, ITHACA

Applications are invited for a tenure-track position as assistant professor in the Section of Physiology (fall 1982). Responsibilities include a major role in the new undergraduate lecture/laboratory course cell physiology (spring semester), participation in the graduate field of physiology, and an active research program in some aspect of functional regulation at the cellular level, preferably with application to animal health. Excellent opportunities for collaboration exist in the Department of Animal Science, the College of Veterinary Medicine, and other sections of the Division of Biological Sciences. Send complete curriculum vitae, including evidence of potential for teaching excellence and a description of current and future research programs, and have three letters of recommendation sent directly to: **Klaus W. Beyenbach, Chairman, Search Committee, VRT 826, Cornell University, Ithaca, N.Y. 14853, before the closing date: 15 March 1982. Cornell University is an Affirmative Action/Equal Opportunity Employer.**

CELLULAR IMMUNOLOGIST: Assistant or associate professor. Ph.D., D.V.M., or M.D. and postdoctoral training. To maintain excellent research program and participate in teaching at professional and graduate level. Preference given to those with research interests in regulation of cellular interactions or in immune mechanisms in host resistance. We expect to fill the position by 1 September 1982. The closing date for applications will be 1 April 1982, unless a suitable candidate has not been nominated. Curriculum vitae and three letters of reference to: **Dr. J. G. Tew, Chairman, Search Committee (c/o M. C. Goodwin), Department of Microbiology and Immunology, Virginia Commonwealth University, Box 678-MCV Station, Richmond, Virginia 23298. Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

Applications are invited by qualified candidates for the position of **CHAIRMAN** of the Department of Biology at Washington University. Applicants should be well-established scientists with a strong background in research. Preference will be given to applicants with an interest in developmental biology or molecular aspects of plant biology. Interested applicants should provide complete curriculum vitae as well as the names of at least three scientists who can be contacted for references to: **Dr. L. Glaser, Department of Biological Chemistry, Box 8094, Washington University School of Medicine, St. Louis, Missouri 63110.**

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

CLINICAL MICROBIOLOGY LABORATORY DIRECTOR. The North Carolina Memorial Hospital (NCMH) and the University of North Carolina (UNC) at Chapel Hill are seeking a physician or clinical scientist to direct the Clinical Microbiology Laboratories. The laboratories occupy new space and have a staff of three associate directors and some 80 personnel. The candidate should have a proven record of service, educational and research accomplishments in academic clinical microbiology, and appropriate Board certification. The position carries an academic appointment in the appropriate medical school department(s). Interested candidates should submit curriculum vitae and three references to: **William W. McLendon, M.D., Chairman, Department of Hospital Laboratories, North Carolina Memorial Hospital, University of North Carolina, Chapel Hill, N.C. 27514. UNC/NCMH is an Equal Opportunity/Affirmative Action Employer.**

CONNECTIVE TISSUE BIOLOGIST. Available July 1982. Ph.D. required. Applicant should demonstrate a broad background in cell biology. The appointee will interdigitate with members of a connective tissue research group studying degenerative and inflammatory arthritides. Some knowledge of immunology and biochemistry desirable. Position at the level of senior research assistant. Salary negotiable. Please send curriculum vitae and names and addresses of three references to: **Roland W. Moskowitz, M.D., Division of Rheumatic Diseases, Case Western Reserve University, 2073 Abington Road, Cleveland, Ohio 44106. An Equal Opportunity Employer.**

University of Michigan, Department of Internal Medicine, has a position available 1 July 1982, for a **DIABETOLOGIST-ENDOCRINOLOGIST** as physician-coordinator of an Adult Diabetes Center Unit of the Michigan Diabetes Research and Training Center. The level of the academic position in the Medical School depends on qualifications of applicant. Sound training in patient care, clinical research, and teaching abilities are prerequisites. Send curriculum vitae to: **Stefan S. Fajans, M.D., 4103 SACH, University of Michigan Hospital, Ann Arbor, Michigan 48109. A nondiscriminatory, Affirmative Action Employer. Code 150FO.**

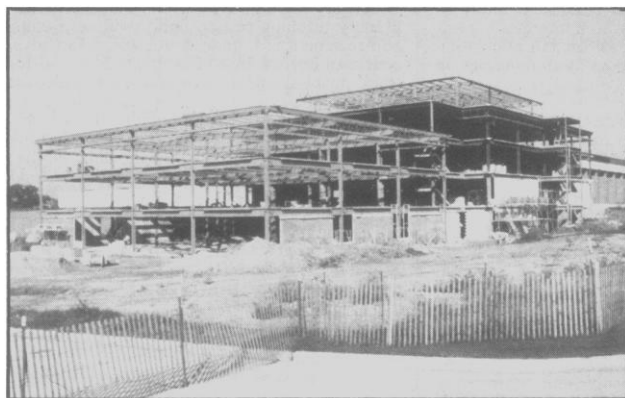
The Department of Radiology at the University of Michigan is searching for a **FACULTY MEMBER** with Ph.D. degree in medical statistics who has had at least 2 years of experience working in an academic Department of Radiology. This individual must have demonstrated research skills in imaging and shape analysis, as well as ability as a teacher of medical students.

Interested applicants should contact: **William Martel, M.D., Acting Chairman, Department of Radiology, University of Michigan Medical School, Ann Arbor, Michigan 48109. A nondiscriminatory, Affirmative Action Employer. Code 100.**

The Department of Radiology at the University of Michigan Medical School on occasion has open **FACULTY POSITIONS**. Physicians filling these positions will take part in the programs of patient care, teaching, and research of the Department of Radiology. They will supervise the activities of the house officers and aid in the teaching of house officers and medical students. Qualified applicants must be American Board of Radiology-certified or 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., Acting Chairman, Department of Radiology, University of Michigan Medical School, Ann Arbor, Michigan 48109. A nondiscriminatory, Affirmative Action Employer.**

ABBOTT RESEARCH OPPORTUNITIES



June, 1981 Construction begins on new Research Facility at Abbott Park



Artist's rendering of finished facility, scheduled completion August, 1982

A VISIBLE COMMITMENT TO GROWTH

The management of Abbott Laboratories has made a significant, long term commitment to major research and development activities that we know are vital for our future growth.

We invite scientists from a variety of disciplines to consider the career opportunities available in our expanding, results oriented research environment. When you join Abbott, you join a research team that has made significant strides in the development of both pharmaceutical and diagnostic products.

Our new research facility is strong evidence of the importance we place on advanced research efforts. The following positions represent a sampling of the openings we anticipate throughout 1982.

ENZYMOLOGISTS

Positions available in both North Chicago and Dallas to develop non-isotopic immunoassays for the monitoring of therapeutic drugs. Candidates should have a Ph.D. in Biochemistry or Immunology. Experience with enzyme kinetics and automated instrumentation is desirable.

VIROLOGIST

Senior research position for scientist with extensive experience in virus research. Qualified candidate must be proficient in tissue culture technique, experienced in virus propagation in tissue cultures, and familiar with established cell lines. Ph.D. and 5 years of independent research experience required.

PROCESS BIOCHEMISTS

This position involves serving as a technical manager for existing immunodiagnostic products. Duties include troubleshooting, process development and improvement as well as interface with manufacturing and quality assurance departments. Qualified candidate should have an MS or Ph.D. in Biochemistry with experience in Immunology.

RESEARCH BIOCHEMIST

Positions involve the development of new EIA's in our diagnostic product lines. Responsibilities will include research activities as well as supervision of project team. Qualified candidates should have experience with protein purification, affinity chromatography and ultracentrifugation, and a Ph.D. in Biochemistry or related disciplines.

RESEARCH SCIENTISTS— BLOOD DELIVERY TECHNOLOGY

- **INSTRUMENTATION SCIENTIST/BIOENGINEER**
Research activities related to the development of blood

analysis instrumentation in a multi-disciplined department. Qualified candidates should have 3 years industrial experience in Biomedical Instrumentation with a Ph.D. in Physics/Bio-Engineering/Biochemistry.

• BIOCHEMIST

Research activities related to blood analysis diagnostic testing in a multi-disciplined department. Qualified candidates should have 5 years of experience using delivery technologies for blood analysis with a Ph.D. in Biochemistry.

RESEARCH BIOCHEMIST— FLUORESCENCE TECHNOLOGY

R&D in Fluorescence Polarization Immunoassays. Duties include project management of novel non-isotopic immunoassays from inception to market introduction. Qualified candidates should have a strong background in the fundamentals of Biochemistry and/or Immunochemistry with direct experience in fluorescence techniques a plus. Formal requirements include a Ph.D. in Biochemistry, Chemistry, or Immunology, with 0-5 years additional experience.

CONVENTION BOUND?

Abbott Representatives will be at the FASEB Meeting in New Orleans, 4/16-23, the ASM Convention in Atlanta, 3/6-12 and the ACS Convention in Las Vegas 3/28-4/2. Send a resume today and we will contact you to arrange an appointment at any of these conventions.

Abbott is headquartered in a pleasant northern suburb of Chicago and we offer an attractive salary and benefits package that includes cash profit sharing, relocation assistance, and stock retirement program. For an outstanding opportunity, send a resume with earnings history, in complete confidence to:

Chris Gude, Corporate Placement

ABBOTT
ABBOTT PARK ILL. 60064

Abbott is an Affirmative Action Employer

POSITIONS OPEN

BIOLOGIST

Tenure-track position in a 4-year liberal arts college. Excellence in college teaching is emphasized. Applicants must be prepared to teach microbiology, biochemistry, and introductory biology. Priority will be given to applicants who arrange for three letters of recommendation concerning teaching abilities to arrive early with résumé. Ph.D. required. Salary and rank will be based on experience. Applications must be received by 8 March. Apply to: **Dr. Mike Harrelson, Chairman, Search Committee, Department of Natural Sciences, Gardner-Webb College, Boiling Springs, N.C. 28017. Equal Opportunity Employer.**

DIRECTOR, DEPARTMENT OF PHYSIOLOGY UNIVERSITY OF CINCINNATI COLLEGE OF MEDICINE

The University of Cincinnati College of Medicine is seeking a new director for the Department of Physiology. The College of Medicine enters 192 medical students per year and is part of the University of Cincinnati which is a comprehensive urban, state university with an enrollment of 35,000 students.

There are presently 13 full-time faculty members and 10 additional members with joint appointments. The department has a strong graduate program and offers a wide variety of graduate courses.

Candidates for the position should have a strong and productive research program, be interested in medical and graduate education, and have demonstrated some administrative abilities. The position is available immediately. Applicants for the position should send a résumé and names of three references to: **Dr. Jerry B. Lingrel, Chairperson, Search Committee, Department of Microbiology and Molecular Genetics, University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, Ohio 45267.**

An Equal Opportunity/Affirmative Action Employer

ENTOMOLOGY. Three positions (insect physiology, pest management, and insect morphology), each 12-month, tenure-track positions. Interested persons should contact **T. J. Helms, Head, Department of Entomology, Mississippi State University, Drawer EM, Mississippi State, Miss. 39762 (telephone: 601-325-3243)**, for additional information. *Mississippi State University is an Affirmative Action/Equal Opportunity Institution.*

DEPARTMENT OF KINESIOLOGY ENVIRONMENTAL PHYSIOLOGY OR BIOMECHANICS

Applications are invited for a tenure-track position, probably at the assistant professor level, starting 1 September 1982. Candidates should have a strong background either in environmental physiology or in biomechanics with a Ph.D. in a relevant field. A developed research program or a strong interest in ergonomics or human factors is highly desirable, and the appointee should be prepared to work on problems related to keeping people at work in alien or hazardous environments. The successful candidate should also have a strong teaching background. Excellent research facilities, including a well-equipped biomechanics laboratory and an environmental physiology laboratory with a deep diving chamber with a wet pot to 300 metres, and altitude chamber to 14,000 metres and a climatic chamber ranging from -30°C to +50°C with all associated laboratory facilities, are available.

Preference will be given to candidates eligible for employment in Canada at the time of application. Applications before 31 March to: **Dr. E. W. Banister, Department of Kinesiology, Simon Fraser University, Burnaby, British Columbia, Canada V5A 1S6.**

EXPERT IN CULTIVATION OF INVERTEBRATE VECTOR TISSUES AND OF PROTOZOAN PARASITES—Center for Parasitology, Department of Zoology, University of Massachusetts, Amherst, is seeking a person experienced in the cultivation of invertebrate tissues and of protozoan parasites to teach these techniques to undergraduate and graduate students and to supervise research of pre- and postdoctoral fellows. The candidate must have had extensive experience in this area of research as evidenced by publications. The anticipated rank is to be **associate professor A**. All applications must include curriculum vitae, a complete list of publications, and names of three experts in the field able to attest to the applicant's competence in the areas listed above. The application should be submitted before 15 March 1982 to: **Professor Gerald C. Coles, Center for Parasitology, Department of Zoology, University of Massachusetts, Amherst, Mass. 01003-0027.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ESTUARINE HYDROLOGIST/PHYSICAL OCEANOGRAPHER

The University of Georgia Marine Institute is seeking an individual with research interests in various aspects of estuarine and salt marsh circulation patterns and/or the dynamics of water masses in shallow nearshore marine systems. The position is open up to the level of research associate or assistant marine scientist. Candidates should have the ability to conduct independent research and must be able to interact with an ecologically oriented research team. Although applicants with a doctorate are preferred, individuals with a master's degree and experience will also be considered.

Research faculty are required to live on Sapelo Island, but are encouraged to become affiliated with an appropriate academic department in the University of Georgia system. Research at the Marine Institute has focused on the chemical, biological, and geological processes operating in and around salt marsh and estuarine ecosystems. A recent emphasis on biological and geochemical processes in the near-shore zone is intended to resolve the controversy surrounding importance of organic "outwelling" in the Georgia Bight.

Qualified applicants should send curriculum vitae, statement of research interests, reprints, and the names of three references to: **Dr. Ron Kneib, Chairman, Search Committee, University of Georgia Marine Institute, Sapelo Island, Ga. 31327.** Deadline: 31 May 1982. *An Affirmative Action/Equal Opportunity Institution.*

FACULTY POSITION IN BIOLOGICAL CHEMISTRY. Tenure-track assistant professor position. We invite applications from individuals working in any area of molecular biology, bioorganic chemistry, or biophysical chemistry. Applicants should submit curriculum vitae, research plans, and letters of reference to: **Biological Chemistry Search Committee, Department of Chemistry, University of Pennsylvania, Philadelphia, Pennsylvania 19104.** *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.*

THE ILLINOIS NATURAL HISTORY SURVEY invites applications for a full-time assistant or associate professional scientist. The incumbent shall possess a Ph.D. in **FISHERY BIOLOGY/MANAGEMENT** with expertise in **SYSTEMS ECOLOGY**, establish a strong research program relating to Illinois fisheries, attract extramural funding, and publish in the scientific literature. Send résumé, transcripts, and names and addresses of four references to: **Dr. R. W. Gorden, Head, Aquatic Biology, Illinois Natural History Survey, Natural Resources Building, 607 East Peabody, Champaign, Ill. 61820.** Closing date: 15 March 1982. *An Equal Opportunity Employer.*

GENETICS/CELL BIOLOGY/MOLECULAR BIOLOGY. A tenure-track assistant professor position is available starting 1 September 1982, in the Department of Biological Sciences, with research and teaching expertise expected in areas of eukaryotic molecular genetics, cytogenetics, cell biology, or developmental biology. The Ph.D. degree and postdoctoral experience are required. Prior to 1 March 1982 provide curriculum vitae, letters of recommendation from three sources, and a cover letter briefly outlining future research and teaching interests to: **David L. Busbee, Ph.D., Chairman, Search Committee, Department of Biological Sciences, North Texas State University, Denton, Texas 76203.** *An Equal Opportunity/Affirmative Action Employer.*

GENETICIST. Tenure-track assistant professor position starting 1982-1983 academic year. Teaching responsibilities: genetics course, elective in specialty, and team-teaching in introductory biology. Candidate must have Ph.D. and be strongly committed to both teaching and research. Research facilities are excellent. Send résumé and graduate and undergraduate transcripts, and ask that three letters of reference be sent to: **Dr. David B. King, Department of Biology, Franklin and Marshall College, Box 3003, Lancaster, Pa. 17604.**

Assistant professor **SABBATICAL REPLACEMENTS** for 1982-1983 academic year. Ph.D. required. **PHYSIOLOGIST** to teach a cell physiology course. **MICROBIOLOGIST/GENETICIST** to teach a general microbiology course and laboratories in biochemistry and genetics. Both positions involve team-teaching introductory biology. Excellent research facilities. Send curriculum vitae, graduate and undergraduate transcripts, and names of three references to: **Dr. David B. King, Department of Biology, Franklin and Marshall College, Lancaster, Pa. 17604.**

POSITIONS OPEN

GENETICIST

The School of Life and Health Sciences at the University of Delaware is seeking a geneticist whose primary teaching responsibility will be a course in human genetics for undergraduates and an advanced course in his/her area of interest. This is a tenure-track position and is expected to be filled at the assistant professor rank. The successful candidate will be a skilled experimentalist in any area of modern genetics. Preference will be given to candidates with experience in recombinant DNA techniques. The closing date for applications is 15 March 1982. Applicants should submit curriculum vitae, representative publication, and three letters of recommendation to: **Dr. Milton H. Stetson, Associate Director for Graduate Programs and Research, School of Life and Health Sciences, University of Delaware, Newark, Del. 19711.**

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

GEOLOGY POSITIONS AVAILABLE

Colby College is seeking two talented, enthusiastic, and motivated geologists to join the faculty in tenure-track positions for fall semester 1982. Preference will be given to persons who have strong interests and training in: (i) geophysics and global tectonics, and the applications of quantitative methods to geology, and (ii) general geology, Northern Appalachian structure and stratigraphy, geomorphology, and glacial geology. A joint appointment in geology and physics is possible. Applicants should have a Ph.D. degree. A strong interest in undergraduate teaching and in research is essential. Colby College has new laboratories with modern instrumentation including EM and SEM facilities. Applicants should respond with a résumé, transcripts, a description of research interests, and three letters of recommendation by 31 March 1982 addressed to: **Professor Donaldson Koons, Chairman, Geology Department, Colby College, Waterville, Maine 04901.**

Colby College is an Affirmative Action/Equal Opportunity Employer.

HEAD, DIVISION OF ENVIRONMENTAL AND INDUSTRIAL HYGIENE AND SAFETY

The Department of Environmental Health, University of Cincinnati, is seeking a qualified scientist to direct a well-established research and graduate training program in environmental and industrial hygiene and safety. Engineering, physical science, and/or analytical chemistry background preferred. Unique opportunity for energetic and creative person in rapidly advancing field.

Send curriculum vitae, bibliography, and description of experience and research interests, as well as three references, to:

**Dr. Raymond R. Suskind
Institute of Environmental Health
University of Cincinnati
Cincinnati, Ohio 45267**

An Equal Opportunity/Affirmative Action Employer

MICROBIOLOGIST: Assistant professor. The Department of Biological Sciences, School of Science and Engineering, **SOUTHERN ILLINOIS UNIVERSITY, EDWARDSVILLE (SIUE)**, anticipates a continuing faculty position beginning September 1982, or earlier. Starting date and rank are negotiable. Duties include teaching of undergraduate courses, especially in microbiology and cell biology, and graduate instruction in an area of specialization. Appointee will be expected to develop a vigorous research program. Applicants should have a Ph.D. or equivalent degree and some postdoctoral work. Teaching experience and evidence of research are desirable. Apply by submitting curriculum vitae, three letters of recommendation, reprints of publications, and an outline of future research plans to the address below by 1 March 1982.

**Chairman, Microbiologist Search Committee
Department of Biological Sciences
Southern Illinois University
Edwardsville, Ill. 62026**

Southern Illinois University, Edwardsville, is located in a rural setting, 25 minutes from downtown St. Louis. The campus occupies 2600 acres and has an enrollment of about 10,000 students. The Biology Department has a faculty of 17 members and confers bachelor's and master's degrees. *As an Affirmative Action Employer, SIUE offers Equal Employment Opportunity without regard to race, color, creed or religion, age, sex, national origin, or handicap.*

DNA Research Chemist

Pfizer Central Research is looking for a creative individual to work in the area of DNA sequencing and purification of oligonucleotides, as part of our recombinant DNA program.

Applicants should have a B.S. or M.S. degree in Organic or Biochemistry with laboratory training in basic biochemical techniques. Research experience in DNA sequencing, nucleic acid enzymology and/or oligonucleotide synthesis and purification is desirable.

Pfizer offers a stimulating professional environment in an attractive Connecticut shore area complemented by a competitive salary/benefits package (relocation assistance available). Please submit detailed resume in confidence to: **Mrs. Lorraine C. Corr, Pfizer Central Research, Eastern Point Road, Groton, Connecticut 06340**



An equal opportunity employer

FACULTY POSITIONS

The College of Veterinary Medicine of the University of Florida is seeking applications and/or nominations for various faculty positions. Detailed position descriptions are available upon request.

DEPARTMENT OF COMPARATIVE AND EXPERIMENTAL PATHOLOGY:

Associate/Assistant Professor of Veterinary Pathology. Application deadline is 2 April 1982. Position number VM-8201. **Dr. C. D. Buergeit, Search Committee Chairperson.**

Visiting Instructor of Veterinary Pathology. Application deadline is 12 March 1982. Position number VM-8202. **Dr. R. P. Shields, Search Committee Chairperson.**

DEPARTMENT OF MEDICAL SCIENCES:

Associate/Assistant Professor of Anesthesiology. Application deadline is 9 April 1982. Position number VM-8203. **Dr. A. I. Webb, Search Committee Chairperson.**

DEPARTMENT OF PREVENTIVE MEDICINE:

Associate/Assistant Professor of Veterinary Toxicology. Application deadline is 1 April 1982. Position number VM-8204. **Dr. J. U. Bell, Search Committee Chairperson.**

Letters of application or nomination should include curriculum vitae outlining citizenship, academic training, teaching and practice experience, present professional activities, and Board-certification. Also needed are a list of publications, a statement of professional goals, and the names of three persons who can provide letters of reference. Salary will be commensurate with training and experience (and the academic rank) of the successful applicant. *The University of Florida is an Affirmative Action/Equal Opportunity Employer.* Correspondence should be addressed to the appropriate Search Committee chairperson at:

College of Veterinary Medicine
Box J-125, JHMHC
University of Florida
Gainesville, Fla. 32610



The Menninger Foundation

Principal Investigator

Research Department

A Principal Investigator is required with a Ph.D., post-doctoral experience and extensive publications in the fields of electrophysiology, neurochemistry and cognitive behavioral research applied to schizophrenia.

Such a person must be committed to a career in mental health research and possess and maintain independent research funding for a research program to include: contour mapped neuroelectrophysiology and catecholamine/peptide related neurochemistry. The principal investigator will be expected to develop, implement and manage the research program and to recruit their own assistants. Salary: \$30,000 per year.

Applicants should report or send resumes to: Topeka Job Service Center, 1430 S. Topeka Ave., Topeka, Kansas 66612 913 232 7804

Job order number: 97342

An equal opportunity employer.

MERCK SHARP & DOHME-CHIBRET

Subsidiary of MERCK and Co.

Continues to develop its new Research Center located in the Heart of France at RIOM (Puy de Dôme)

and SEEKS for its

SAFETY ASSESSMENT DEPARTMENT

TOXICOLOGISTS

Applicants with a DVM, MD, PhD or equivalent and adequate postdoctoral training should have experience and relevant publications in Laboratory Animals.

A professional environment is offered in staff, equipment and facilities. Candidates should have French as their conversational language and a good working knowledge of English.

MSD
MERCK
SHARP
DOHME
CHIBRET

Hand-written applications with a detailed curriculum vitae and expectations should be addressed to:
Direction du Personnel
Usine de Mirabel - Route de Marsat
63203 RIOM CEDEX - FRANCE.

Expanding pre-clinical group has staff additions for first half of 1982 in following laboratories:

- **RENAL**—Ph.D. with demonstrated competence in evaluation of novel diuretics and/or antihypertensive agents.
- **IMMUNOPHARMACOLOGY**—Ph.D. to work on glycosaminoglycan isolation and identification; familiarity with protease characterizations desirable. Experience in cartilage organ and synovial tissue culture. BS/MS experienced in osteoarthritic animal models.
- **PULMONARY**—BS to conduct in vitro tissue assays.
- **CNS**—BS/MS to work on receptor binding studies for neurochemical screening.

Commitment is enhanced by affiliation with extensive research of ICI Pharmaceuticals, which has led to worldwide introduction of the first beta blocker, the first specific antilipidemic agent, and a non-steroidal anti-estrogen for palliative treatment of breast cancer. Expanded U.S. program is ICI's largest pharmaceutical research effort outside U.K., and will target CNS, Arthritic, Pulmonary, and Renal disorders.

New laboratories in suburban setting, 25 miles south of Philadelphia. Competitive salaries/benefits include tax-sheltered investment program. Please submit detailed C.V. in confidence. Principals only.



C. T. Brodigan

STUART
PHARMACEUTICALS

division of ICI Americas Inc.

Wilmington, Delaware 19897

An Equal Opportunity Employer M/F

POSITIONS OPEN

IMMUNOLOGIST OR BIOCHEMIST—Applications are invited for investigators interested in phagocyte biology with emphasis on studies directed to understanding neutrophil functions. Candidates should have training and at least 2 years of postdoctoral experience in phagocyte function studies and in the pharmacologic, immunologic, biochemical, ultrastructural, or clinical areas necessary for the comprehensive study of phagocytes in a clinical research center setting. The title of the position and salary will be commensurate with background and experience. Send curriculum vitae, a brief statement of research accomplishments and plans, and at least three references to: **Dr. Robert Genco, Chairman of the Search Committee, State University of New York, Schools of Dentistry and Medicine, Department of Oral Biology, 4510 Main Street, Buffalo, New York 14226.** We are an Affirmative Action/Equal Opportunity Employer.

Immunologists Protein Peptide Chemists

ACS Pharmaceuticals invites applications from outstanding candidates for positions of Research Scientists. Applicants should have a Ph.D. degree or postdoctoral experience in molecular immunology, protein chemistry or peptide synthesis for research in our rapidly expanding programs in immunology.

ACS Pharmaceuticals offers a competitive salary, comprehensive benefit package and relocation assistance. Please send your resume and salary history in confidence to:

ACS PHARMACEUTICALS, INC.

Personnel
5245 Edina Industrial Blvd.
Edina, Minnesota 55435
Equal Opportunity Employer M/F

MANAGER OF MAJOR ELECTRON MICROSCOPE FACILITY

A position is open for manager of the central research facility of the Department of Anatomy and Cell Biology at the University of Michigan Medical School, beginning 1 September 1982. This facility, called the Cell Biology Laboratories (CBL), includes three transmission electron microscopes, a scanning electron microscope, a freeze-fracture unit, an image-analysis system, biochemistry equipment, a culture facility, two darkrooms, and other facilities. Applicants should have experience in electron microscopy and in the maintenance of an EM facility. Annual salary of up to \$24,000 is on departmental funds. Applicants should contact: **Dr. A. Kent Christensen, Department of Anatomy and Cell Biology, The University of Michigan Medical School, Ann Arbor, Mich. 48109.** The University of Michigan is an Equal Opportunity/Affirmative Action Employer.

MEDICAL TECHNOLOGIST— RESEARCH AND DEVELOPMENT

Rapidly growing biomedical corporation of Long Island, N.Y., has a new opening. B.S. and/or M.S. in biological sciences required, some knowledge of recombinant DNA and/or antibody cloning an asset. Excellent salary and benefits package will be offered to the qualified applicant. Send résumé (salary requirements must be included) to: **Diagnostic Technology, Inc., 290 Community Drive, Great Neck, N.Y. 11021.** Telephone: 800-645-6288. Contact: Nicholas Vernola.

MYCOLOGIST—Assistant/associate professor, tenure-track, starting 16 August 1982. Candidate must be able to teach introductory and advanced mycology and introductory biology. Candidate must have proven research ability and will be expected to maintain a vigorous research program supported by outside funds. Send résumé, statement of research interest, and copies of all transcripts, and have three letters of reference sent to: **Professor D. E. Talburt, Chairman, Department of Botany and Bacteriology, S.E. 401, University of Arkansas, Fayetteville, Arkansas 72701.** Closing date for applications is 31 March 1982. The University of Arkansas is an Equal Opportunity/Affirmative Action Institution.

POSITIONS OPEN

MEDICAL LABORATORY IMMUNOLOGY TRAINEE. Applications are invited for postdoctoral training positions in medical laboratory immunology at University of California, Los Angeles (UCLA) beginning 1 July 1982 and 1 January 1983. This 2-year program provides broad training in immunopathology, in the use of laboratory procedures for the assessment of humoral and cellular immune functions, disease diagnosis, and treatment evaluation. Opportunities exist for original research using clinical materials and for management of laboratory personnel and finances. A Ph.D. or M.D. with prior education and training in immunology is required. Letters of inquiry should be addressed to: **Dr. J. L. Fahey, Medical Immunology Laboratory, UCLA School of Medicine, Los Angeles, Calif. 90024.** An Equal Opportunity Employer.

MICROBIAL GENETICIST—Applications are invited for a position at the assistant professor level. Applicants should have a strong background in microbial genetics with demonstrable research interests in the genetics of pathogenic microorganisms. Responsibilities include teaching microbial genetics and pathogenesis to medical and graduate students. The successful candidate should also be able to develop an active research program and act as preceptor to graduate students. Applicants should submit curriculum vitae and names of three referees to: **Chairman, Search Committee, Department of Microbiology and Immunology, Temple University School of Medicine, 3400 North Broad Street, Philadelphia, Pa. 19140.** An Equal Opportunity/Affirmative Action Employer.

MICROBIOLOGIST/ACTINOMYCETE TAXONOMIST. Career federal service. Opportunity for a qualified research professional to conduct basic and applied studies on the taxonomy and biology of Actinomycetales of importance to agriculture. Individual will also be responsible for the Actinomycete Collection of the ARS Culture Collection (NRRL). Salary based on qualifications and experience. GS 11/12-level position. Position located at the Northern Regional Research Center, Peoria, Illinois. Send curriculum vitae and references to: **Dr. C. P. Kurtzman, ARS Culture Collection, Northern Regional Research Center (S), U.S. Department of Agriculture, 1815 North University Street, Peoria, Ill. 61604.** Telephone: 309-685-4011. Equal Opportunity Employer.

MUSEUM: DIRECTOR. The Chicago Academy of Sciences seeks a specialist in the fields of natural history and ecology to serve as its director, beginning by September 1982. The successful applicant will have the Ph.D. degree, experience in the design of museum exhibits, and administration, as well as an interest in ongoing field research. The Chicago Academy of Sciences was founded in 1857 and is one of the oldest scientific institutions in the Midwest. The Chicago Academy of Sciences is an Equal Opportunity Employer. All replies confidential. **Box 48, SCIENCE.**

NEUROENDOCRINOLOGY/NEUROCHEMIST/NEUROPHARMACOLOGIST. Faculty position available at instructor level for highly qualified individual, with strong research interests required to teach in medical neuroscience course. Send curriculum vitae and three letters of reference to: **Stuart B. Cook, M.D., Department of Neurosciences, UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY, 100 Bergen Street, Newark, N.J. 07103.** Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF WISCONSIN-MADISON SCHOOL OF PHARMACY

Applications are solicited for a tenure-track position on the faculty of the School of Pharmacy, University of Wisconsin-Madison, in the general area of drug delivery (pharmaceutics). The background, interests, and research capabilities of applicants should reflect an interest in such problems as drug absorption, transport across membranes, biomaterials, and innovative dosage form design. Participation in the teaching program is expected. An academic background in pharmacy is preferred but is not essential. The appointment is planned at the junior level, although an exceptionally well-qualified senior person could be considered. The position is available 1 July 1982. Deadline for receipt of applications is 15 April. Applicants should send a résumé and names of three references to the chairman of the search committee: **Professor Joseph R. Robinson, School of Pharmacy, University of Wisconsin, 425 North Charter Street, Madison, Wisconsin 53706.**

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

POSITIONS OPEN

ORGANIC CHEMIST. We are a young, dynamic biotechnology company located in highly desirable San Diego near University of California, San Diego, Scripps Clinic, and Salk Institute, with an immediate opening for a Ph.D. in organic chemistry to conduct publishable research on nucleotide and drug synthesis. Our major involvements are in the areas of drug delivery and recombinant DNA. Send résumé, reprints, and at least three references.

Box 35, SCIENCE.

PATHOLOGIST

New Jersey Board-eligible or -certified preferred for an academic teaching position located primarily at the Rutgers Medical School campus in Piscataway, New Jersey. Individual with research orientation preferred; and service interests will be considered; immunopathology, virology, and carcinogenesis areas highly desirable. An excellent opportunity to mature professionally in a new department of a developing academic institution. Research facilities at either the Camden or Rutgers Medical School campus can be arranged. Send letter of intent, curriculum vitae, and names, addresses, and telephone numbers of at least three references to: **Dr. S. M. Epstein, Chairperson, Department of Pathology, UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY—New Jersey School of Osteopathic Medicine, 300 Broadway, Camden, N.J. 08103.** Equal Opportunity/Affirmative Action Employer, M/F.

INVESTIGATION OF PATHOPHYSIOLOGY OF MECHANICAL BRAIN INJURY AND DYSFUNCTION

The Division of Neurosurgery at the Medical College of Virginia, Virginia Commonwealth University, Richmond, Virginia, is seeking qualified basic scientists, physiologists, neuroscientists, experimental psychologists, pharmacologists, physicists, and so forth, with broad scientific backgrounds, to work in a highly productive, dynamic, multidisciplinary group of M.D.'s and Ph.D.'s dedicated to the study of the pathophysiology of human brain injury and dysfunction. Cerebral blood flow and metabolism, brain electrophysiology, intracranial pressure measurements, and so forth, are among the many parameters under investigation in the patients. The opportunity for scientific growth and career advancement is excellent. Salaries are very competitive and secure. Send curriculum vitae and particulars to:

Donald P. Becker, M.D.
Director, Brain Injury Research Center
MCV Station-Box 508
Richmond, Virginia 23298

PHARMACOLOGISTS: TWO FACULTY POSITIONS

St. Louis College of Pharmacy invites applications for two tenure-track, full-time, academic-year teaching positions at the assistant/associate professor level. Ph.D. or equivalent required and a B.S. in pharmacy preferred. Teaching duties in pharmacology and pharmacotherapeutics plus two or three of the following: toxicology, drug abuse education, pathology, microbiology, and immunobiology. Send résumé, transcripts, and names of three references by 10 March 1982 to: **Dr. R. J. Cooper, St. Louis College of Pharmacy, 4588 Parkview Place, St. Louis, Missouri 63110.** An Equal Opportunity Employer.

PHYSICIAN to assist in unique program devoted to evaluation, treatment, and research in sensory disorders of taste and olfaction. Training in otolaryngology, allergy-immunology, neurology, medicine preferred. Available 1 July 1982. Send curriculum vitae and names of three references to: **Dr. R. I. Henkin, Center for Molecular Nutrition and Sensory Disorders, Georgetown University Medical Center, Washington, D.C. 20007.**

THE DEPARTMENT OF BOTANY, DUKE UNIVERSITY, seeks a **PLANT MOLECULAR BIOLOGIST** with expertise in recombinant DNA technology for a tenure-track position at the assistant professor level. The individual is expected to establish an active research program, contribute to the departmental course offerings, and participate in the interdepartmental graduate program in genetics and/or cell and molecular biology. Send curriculum vitae, statement of research plans, and the names of three references to: **Dr. James N. Siedow, Chairman of the Search Committee, Department of Botany, Duke University, Durham, N.C. 27706.** Application deadline is 22 March 1982. An Affirmative Action/Equal Opportunity Employer.

Research Nutritionist

Cutter Laboratories, Inc., a leader in the manufacture of a broad range of medical and biological products for health care markets world-wide, seeks to add a Research Nutritionist to our Staff.

This position carries primary responsibility for animal investigations of all aspects of our basic nutritional research program, intended to develop nutritionally and therapeutically useful parenteral products. While the scope of this program is broad, our emphasis presently is upon lipid metabolism and therapeutic applications of nutrition.

The successful candidate should have the knowledge ordinarily acquired from 1-2 years post graduate level courses in Nutrition, Physiological Chemistry or a related discipline plus 4-6 years of experience, or an equivalent combination of education and experience.

We offer an excellent environment for professional and career growth, and are located in the San Francisco Bay Area which offers exceptional living, educational, cultural and recreational opportunities.

Please send your resume in confidence with salary history to **John Taylor, Cutter Laboratories, Inc., 4th and Parker Streets, P.O. Box 1986, Berkeley, California 94701.** We are an equal opportunity/affirmative action employer.

Cutter

CUTTER
Laboratories, Inc.

HEALTH EFFECTS INSTITUTE (HEI) POSITIONS IN RESEARCH AND FINANCIAL ADMINISTRATION

HEI is a relatively new, independent organization whose purpose is to plan, fund, and oversee the conduct of research into the health effects of automotive emissions. The Institute was developed out of negotiations between and is funded by the Environmental Protection Agency and the automotive industry. It is considered as an evolving model for developing viable scientific information relevant to regulatory decision. To that end it is seeking both to develop innovative research approaches and to foster more extensive patterns of consultation among all interested parties.

HEI is governed by an independent Board of Directors chaired by Professor Archibald Cox, Carl M. Loeb Professor, Harvard Law School; William O. Baker, Chairman Emeritus of Bell Laboratories; and Donald Kennedy, President of Stanford University. The Institute's Health Research Committee, composed of six distinguished scientists in the relevant fields, is chaired by Walter A. Rosenblith, Institute Professor and recent Provost at Massachusetts Institute of Technology.

HEI is receiving applications for two positions required to administer the organization's activities.

The first is a **DIRECTOR OF RESEARCH MANAGEMENT**. This individual will design and then implement the machinery for solicitation, review, and decision on HEI-funded studies. A somewhat analogous post in government might be an executive secretary of an NIH study section. An advanced degree in a relevant health-related field and proven expertise in administration of scientific research are prerequisites. Demonstrated capacity to work with experts in diverse scientific fields to specify and assure the performance of rigorous and creative research are the primary qualifications.

The second position is **FINANCIAL DIRECTOR OF GRANTS AND CONTRACTS**. This person will be responsible for developing and then implementing the financial procedures which will govern the administration of HEI-funded studies. Grants and contracts administration experience and the relevant financial or business training are prerequisites. A demonstrated capacity to negotiate and then implement complex financial arrangements, preferably in a scientific or technical context, is the primary qualification.

Requests for information and applications should be addressed to: **Dr. Charles W. Powers, Executive Director, Health Effects Institute, 215 First Street, Cambridge, Massachusetts 02142.**

HEI is an Equal Opportunity Employer

YALE UNIVERSITY Department of Biology

Yale University's Department of Biology seeks applications for an Assistant Professorship in plant molecular biology. Starting Academic Year 82/83 or 83/84. Areas of interest include molecular approaches to the genetics or development of plants or plant organelles, and to the interaction between plant and microbial genomes.

Duties for the position: participation in both undergraduate and graduate teaching and management of a strong research programme.

Send C.V., resume of past and present research and the names of three referees to: Executive Secretary, Department of Biology, Yale University, PO Box 6666, New Haven, CT 06511. Deadline for applications—March 15, 1982. Yale University is an equal opportunity affirmative action employer.

Process Development Scientists/Engineers

Genentech, Inc., a leading genetic engineering company located on the beautiful San Francisco Peninsula, is currently seeking Scientists/Biochemical Engineers for our Process Development Group. We have immediate openings in the following areas:

Senior Microbiologist

Will build and direct a laboratory group which conducts Process Development research for the purpose of increasing yields and efficiencies of fermentation processes. Must have strong background and skills in genetic transfer and selection techniques and in Microbial Biochemistry. Requires a PhD plus 2-5 years laboratory supervision. **Position # 11-111**

Senior Biochemical Engineer

Will build and lead a research group which develops and optimizes new processes and techniques for large-scale fermentation production. Must have strong background in state-of-the-art fermentation technology coupled with an appreciation of recombinant DNA principles. Requires PhD in Biochemical Engineering or related discipline plus 2-5 years experience as a group leader in fermentation process development. **Position # 11-112**

Scientist-Yeast Fermentation Development

Will develop efficient high yielding fermentation processes using genetically engineered yeast strains. Must have strong background in yeast physiology and genetics. Appreciation for industrial problems and ability to use computer methods desirable. Requires a PhD in Microbiology, Biochemical Engineering or related disciplines, or an MS degree with significant laboratory experience. **Position # 11-113**

Scientist-Microbial Biochemistry & Physiology

Will develop and apply diagnostic research methodologies to the optimization of bacterial fermentations which produce eukaryotic proteins. Must be able to apply techniques of protein biochemistry to problems of microbial physiology. Requires PhD in Biochemistry, Microbiology or related discipline. Post-doctoral experience preferable. **Position # 11-114**

All applicants must be able to interact effectively with complementary disciplines.

We have an excellent compensation and a benefit package which includes a liberal relocation program. For immediate consideration please send curriculum vitae and the name of three references to **Professional Employment**, referring to specific Position Number.

Genentech, Inc. 460 Point San Bruno Boulevard
South San Francisco, CA 94080

We are an equal opportunity employer m/f

POSITIONS OPEN

MGH Institute of Health Professions

Full-time faculty position available for a **PHYSIOLOGIST** at the new MGH Institute of Health Professions, multidisciplinary graduate school with programs in nursing, dietetics, physical therapy, speech pathology, and social work. Doctorate degree required. Teaching experience preferred. Submit curriculum vitae to: **Dr. Roslyn R. Elms, Professor and Director of Graduate Program in Nursing, MGH Institute of Health Professions, 40 Blossom Street, Boston, Mass. 02114.**

POSTDOCTORAL POSITIONS are available (1 July 1982) in the Cardiovascular Pulmonary Research Laboratory in Denver. Preference will be given to those with an interest in:

- High altitude physiology,
- Control of pulmonary circulation,
- Neural control of ventilation, and
- Ventilatory disorders during sleep.

Please send curriculum vitae and names of three references to:

Dr. Wiltz Wagner
CVP Laboratory, Box B-133
University of Colorado Health Sciences Center
4200 East Ninth Avenue
Denver, Colo. 80262

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

POSTDOCTORAL POSITION available for research on the biophysics and biochemistry of ionic channels in nerve membranes. Projects include studies on neuron-neuroglia interactions, ionic channel structure, and conduction through demyelinated and remyelinating segments. Experience in electrophysiology is desirable. Applicants with backgrounds primarily in physics or engineering may also be considered. Salary commensurate with experience. Send curriculum vitae and names of three references to: **Dr. Peter Shrager, Department of Physiology, Box 642, University of Rochester Medical Center, Rochester, N.Y. 14642.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately to study the effects of cold acclimation and freezing injury on the plasma membrane of isolated protoplasts, including analysis of the stress-strain relationship and membrane flow of the plasma membrane subjected to surface area deformation. Send curriculum vitae and three letters of recommendation to: **Dr. P. L. Steponkus, Department of Agronomy, Cornell University, Ithaca, N.Y. 14853.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION. Peptide and protein chemistry, enzymology—cholinesterases, phosphatases, angiotensin system, and so forth. Write:

I. B. Wilson
Department of Chemistry
University of Colorado
Boulder, Colorado 80309

Affirmative Action/Equal Opportunity Employer

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

invites applications and nominations for the post of

THE THOMAS H. JONES PROFESSORSHIP

Through the generous support of Thomas H. Jones, the School of Forestry and Wildlife Resources at Virginia Tech is establishing a third partially endowed chair. The individual selected to fill this prestigious post must be an established, well-recognized scientist and scholar who could provide leadership in research and graduate studies in area of specialization. Those interested in this position should have already achieved distinction in their profession and should have credentials that clearly indicate qualifications at the senior professor level.

The candidate's specialization is of lesser importance than the strength of his/her qualifications. Candidates in any area of forestry, fisheries, or wildlife are invited to apply. Applications will be accepted until 1 March 1982 or until a suitable candidate is selected.

The position becomes available 1 July 1982. Nominations and applications, together with supporting documents, should be submitted to:

Dr. John F. Hosner, Director
School of Forestry and Wildlife Resources
324 Cheatham Hall

Virginia Polytechnic Institute and State University
Blacksburg, Virginia 24061

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

POSTDOCTORAL POSITION. Available 1 July 1982 for research on the biochemistry and structure of the thick filaments of invertebrate muscles. Background in contractile protein biochemistry essential; interest in structural studies helpful. Send curriculum vitae, brief statement of research experience and interests, and names of three references to: **Dr. Rhea J. C. Levine, Department of Anatomy, The Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, Pa. 19129.** *An Equal Opportunity/Affirmative Action Employer.*

A 2-year **POSTDOCTORAL POSITION** available immediately to study the influence of inhalation anesthetics on various model and intact systems. Experience in membrane biochemistry or NMR spectroscopy required. Salary: \$14,000. Applicants should write or telephone: **Dr. A. M. Wyrwicz, Department of Chemistry, University of Illinois at Chicago Circle, P.O. Box 4338, Chicago, Illinois 60680.** Telephone: 312-996-2373. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE position available for studies on the neuronal cytoskeleton. Research involves the study of the cytoskeleton in the developing optic nerve; the purification reassembly and structure of neurofilaments and interactions between neurons and glia in culture. Salary: \$17,200, open. Must have Ph.D. in biochemistry, cell biology, or related field. This position is available immediately. Send curriculum vitae and three letters of recommendation to: **Dr. R. Liem, Department of Pharmacology, New York University Medical Center, 550 First Avenue, New York, N.Y. 10016.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL SCIENTIST position in genetics to exploit biochemical techniques in research on baboons as an animal model for human diseases. Applicants should have experience in electrophoretic methods. Salary without previous postdoctoral experience: \$16,536. Laboratory directed by **Dr. John L. VandeBerg.** Send curriculum vitae, university transcripts, statements of current research interests and career goals, and the names and addresses of three references to: **Personnel Manager, Southwest Foundation for Research and Education, P.O. Box 28147, San Antonio, Texas 78284.**

We are an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL TRAINEE available immediately. Postdoctoral position on a Cancer Biology Training Grant. Ph.D. in biochemistry, molecular biology, pharmacology, microbiology, and cell biology. Areas of research available: carcinogen metabolism, gene regulation, asbestos-carcinogen interactions; α -fetoprotein expression; cytochrome P450 molecular biology, alteration of toxicity of chemotherapeutic agents, hepatocyte biology in neoplasia, and biology of epithelial cells. Send curriculum vitae and three letters of recommendation to: **Dr. Edward Bresnick, Department of Biochemistry, University of Vermont College of Medicine, Burlington, Vermont 05405.**

RADIATION THERAPISTS needed to staff an all new therapy facility. Large patient load, four megavoltage therapy machines, excellent physics and technology support staffs. This is a university-based practice stressing clinical care and clinical, biology, and physics research. Board-eligible applicants are invited to apply to:

William E. Powers, M.D.
Radiation Oncology Center
4201 St. Antoine
Detroit, Michigan 48201

Associated with Wayne State University and the Detroit Medical Center. *An Equal Opportunity Employer.*

UNIVERSITY OF PENNSYLVANIA DEPARTMENT OF MEDICINE

The Cardiovascular-Pulmonary Division seeks a **RESEARCH ASSOCIATE**:

Ph.D. in bioengineering or physiology with proven competence in mathematical modeling of cardiovascular system and laboratory experience with isolated and intact animal heart preparations. Candidates with electronics background and expertise in computer hardware and software are highly preferred. Send résumé and names of three references to: **Dr. Karl T. Weber, Director, Cardio-Pulmonary Research Laboratories, CVP Division, Department of Medicine, University of Pennsylvania, 3400 Spruce Street, Philadelphia, Pa. 19104.** *Equal Opportunity/Affirmative Action Employer, M/F.*

POSITIONS OPEN

HARVARD MEDICAL SCHOOL—McLEAN HOSPITAL—PROFESSOR OF PSYCHOBIOLOGY—To be responsible for establishing an academic program at McLean Hospital on frontiers between the neurosciences, clinical psychology, and psychiatry. Candidates must have done creative and meritorious research relevant to this mission, and possess a sophisticated commitment to the interdisciplinary study of mental disease. Interested, qualified persons may submit their curriculum vitae and publication list to: **Chairman, Psychobiology Search Committee, Ralph Lowell Laboratories, McLean Hospital, Belmont, Mass. 02178.** *Equal Opportunity/Affirmative Action Employers.*

UNIVERSITY OF ILLINOIS AT CHICAGO. Department of Psychology anticipates one or two tenure-track or visiting faculty openings, subject to availability of funds, to begin September 1982. Level is open. Responsibilities include teaching undergraduate and graduate courses and conducting an active research program. (i) **BIOPSYCHOLOGIST**—Research in brain function. (ii) **SOCIAL PSYCHOLOGIST**—Research in health psychology. Send curriculum vitae, three letters of reference, and selected reprints by 1 March 1982 to: **Dr. Charles L. Gruder, Chairperson, Department of Psychology, Box 4348, Chicago, Ill. 60680.** *The University of Illinois is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH NEUROSCIENTIST

A position is available at the assistant or associate professor level for an independent investigator. A neurochemical research program in the area of aging, at development or the peripheral nervous system is preferred. Investigations utilizing tissue culture or immunologic techniques are of particular interest. The successful candidate will work in a multidisciplinary program emphasizing molecular and cellular approaches. The applicant should be interested in teaching and participating in pre- and postdoctoral neuroscience training programs which are now being organized. Candidates should send curriculum vitae, bibliography, and a statement of research interests to: **Barbara Talamo, Ph.D., Neuroscience Laboratories, Department of Neurology, Tufts-New England Medical Center, 136 Harrison Avenue, Boston, Massachusetts 02111.** Telephone: 617-956-7640. *An Equal Opportunity/Affirmative Action Employer.*

STAFF SCIENTIST (Ph.D.)/RESEARCH ASSOCIATE (Ph.D.)/RESEARCH ANALYST (B.S./M.S.).

SRI INTERNATIONAL, on the San Francisco peninsula, has immediate positions in theoretical chemical research applied to biomedical problems. Subject areas include opiate narcotics, anxiolytics, enzyme mechanism, chemical carcinogens, metal-organic biosystems, biochemical reactivity, and intermolecular interactions. Interdisciplinary background in chemistry/computer science/biochemistry/pharmacology preferred. Several positions available at different levels, from experienced Ph.D. to entry-level B.S./M.S. Send résumé, list of publications, and names of three references to: **G. L. Zaragoza, SRI INTERNATIONAL, 333 Ravenswood Avenue, Menlo Park, Calif. 94025.** Telephone: 415-859-3108. *An Equal Opportunity Employer.*

Theoretical Ecologist OR Plant Physiological Ecologist

The Ecology Section of the University of Connecticut has a tenure-track position for an assistant professor beginning September 1982. Teaching duties include an undergraduate course in general ecology and a graduate course in the applicant's specialty. Applicants should have a Ph.D. and a strong interest in research.

Send curriculum vitae, a description of research interests, and the names of three references by 1 March 1982 to:

DR. R. JACK SCHULTZ, Head
Ecology Section
Biological Sciences Group
UNIVERSITY OF CONNECTICUT
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Post Doctoral Scientist

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The Wakeman Award

The Wakeman Award is given to an outstanding neuroscientist whose work relates to the recovery from spinal cord injury. In order to select the recipient(s) of the Wakeman Award, the Wakeman Award Committee reviews the work currently being done in the field of paraplegia, narrowly defined, as well as a broader view of the basic science areas related to paraplegia. The future recipients of the Wakeman Award may represent not only individuals who have been actively involved and productive in this research area, but could well be younger investigators who would be encouraged to continue research for recovery from spinal cord injury.

An Award of \$10,000 will be presented Friday, October 15, 1982 at the Searle Center, Duke University Medical Center, Durham, North Carolina.

The previous recipients of the Award are as follows:

1972	Dr. Roger W. Sperry Dr. William F. Windle
1974	Dr. Stanley Cohen Dr. Rita Levi-Montalcini
1976	Dr. Stephen W. Kuffler
1978	Dr. Viktor Hamburger Dr. Paul Alfred Weiss
1980	Dr. Geoffrey Raisman

Nominations may be submitted to the Wakeman Award Committee at the following address. The nominators and nominees will be kept confidential.

Allen D. Roses, M.D.
Box M-2900
Duke University Medical Center
Durham, North Carolina 27710

Molecular Biologist

The Plant Genetics Department of Pfizer Central Research provides basic research support for corn and soybean breeding programs. We seek a PhD level scientist to carry out research designed to develop vector systems for transferring foreign genes into corn and soybeans and to explore potential applications of gene transfer technology to crop improvement.

In addition to a PhD with training in molecular biology, experience with gene cloning techniques and microbial genetics is required. Prior experience with higher plant systems is preferred.

This position offers an excellent opportunity for professional recognition and career growth. We also offer a competitive compensation and benefit package and the opportunity to live in an attractive Connecticut shore community. Please send resume and description of research interests to: **Mr. F. G. Ziegler, Pfizer Inc., Eastern Point Road, Groton, CT 06340.**



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POSITIONS OPEN

UNIVERSITÉ LAVAL RESEARCH ASSOCIATE (Physical Oceanographer)

Applications are invited for a physical oceanographer in the Department of Biology, Université Laval, in the following fields: (i) research on processes in coastal and estuarine waters, and (ii) numerical analysis of data series (physical and biological). **Qualifications:** Ph.D. or equivalent. **Duration:** 5 years. **Beginning** not later than 1 June 1982. **Language:** the working language in Université Laval is French; non-francophone candidates should be prepared to acquire a working knowledge of French within 1 year. **Salary:** commensurate with qualifications and experience. Mail your curriculum vitae together with the names of three referees before 28 February 1982 to: **Professor André Gagnon, directeur, Département de biologie, Faculté des sciences et de génie, Université Laval, Cité universitaire, Québec, Canada G1K 7P4.**

The Long Island Research Institute (LIRI), a facility of the New York State Office of Mental Health which is colocated with the Department of Psychiatry and Behavioral Science, School of Medicine, of the State University of New York (SUNY) at Stony Brook, is seeking **TWO RESEARCH PSYCHIATRISTS.** One appointee is to serve as the director of the Division of Child Mental Health; the other is to pursue clinical research on depression or schizophrenia. Biologically oriented researchers are preferred. The Institute employs over 60 scientists and staff including psychiatrists, psychologists, sociologists, neuroscientists, and chemists engaged in research on schizophrenia, child mental health, epidemiology of mental illness, gender development and sexual dysfunction, psychopharmacology, psychoneuroendocrinology, sleep disorders, and behavioral medicine. The Institute is located in a recently opened university medical center. The laboratories are well equipped and the setting is conducive to research. Applicants should send curriculum vitae and statement of research interests to: **R. E. Whalen, Scientific Director, LIRI, Health Sciences Center 10T, SUNY, Stony Brook, N.Y. 11794. LIRI is an Equal Opportunity/Affirmative Action Employer.**

SCIENCE AND DEVELOPMENT PROGRAM

A Washington, D.C., scientific institution is seeking candidates for two **professional staff openings** in a research grants program in the international science, technology, and development area. Responsibilities: prepare, supervise, and evaluate research grant projects in developing countries; organize international meetings, seminars and courses; and preparation of technical documentation. Qualifications: advanced degree in (i) chemistry, biochemistry, or agriculture or (ii) engineering or applied sciences, plus at least 5 years of experience in international development projects, administrative and negotiation skills, experience in budget preparation and project management; ability to write well is essential. Fluency in French or Spanish desirable. Positions require about 30 percent overseas travel. Submit résumé to: **MG, P.O. Box 57140, Washington, D.C. 20037. An Equal Opportunity Employer.**

ZOOLOGIST—The Department of Biology at Moravian College, a small liberal arts institution, has a tenure-track position to be filled in fall 1982 in zoology. Ph.D. required. Teaching duties include an **INTRODUCTORY ZOOLOGY** course and upper-level courses in **VERTEBRATE ANATOMY, PHYSIOLOGY, and DEVELOPMENTAL BIOLOGY** or **INVERTEBRATE ZOOLOGY.** The person appointed will be encouraged to establish his/her own research program. Letters of inquiry should be accompanied by curriculum vitae. Send to: **Dr. James B. Mitchell, Professor and Chairman, Department of Biology, Moravian College, Bethlehem, Pa. 18018. An Equal Opportunity Employer.**

SYMPOSIUM

INTERNATIONAL SYMPOSIUM OF THE SOCIETY OF TOXICOLOGIC PATHOLOGISTS RODENT LIVER NODULES: SIGNIFICANCE TO HUMAN CANCER RISK? 10 to 12 MAY 1982

Sheraton International Conference Center
Reston, Virginia 22091

The meeting will explore evidence for and against the current concept that rodent liver nodules found in toxicity studies are *prima facie* evidence of human carcinogenic potential. Requests for information to be submitted to: **B. E. McKenzie, Ortho Pharmaceutical Corporation, Raritan, New Jersey 08869.**

GRADUATE STUDY

GRADUATE STUDIES IN ANATOMY. Fellowships leading to the Ph.D. in anatomy available fall 1982 at University of Kentucky Medical Center. Programs offer training in modern research techniques and general courses covering all aspects of human anatomy. Major research interests include respiratory biology, neurobiology, neuroendocrinology, reproductive biology, biology of aging, ultrastructure, and others. A strong background in science and a sincere interest in an academic career are required. Stipends begin at \$5000 per year. Applications should be complete by 30 April. For more details regarding curriculum, research programs, and application materials, write: **Dr. H. Traurig, Director of Graduate Studies, Anatomy, University of Kentucky Medical Center, Lexington, Ky. 40536. An Affirmative Action/Equal Opportunity Institution.**

Ph.D. IN BASIC MEDICAL SCIENCES

Applications are now being accepted for September 1982 entrance into the graduate program leading to the Ph.D. with specialization in anatomy, biochemistry, microbiology/immunology, pharmacology, or physiology. A Ph.D.-M.D. track is available for exceptionally qualified students. This program accepts qualified students after only 3 years of undergraduate study. Tuition is waived. Stipend is \$5000 per year. Application deadline: 30 April. For further information write:

**Dr. Edwin R. Hughes, Director
University of South Alabama
MSB 1015
Mobile, Alabama 36688**

TRAINEESHIPS

POSTDOCTORAL TRAINEESHIPS IN ENVIRONMENTAL TOXICOLOGY AND PATHOLOGY. Positions available 1 July 1982 in NIH-funded interdisciplinary program. Research areas include pathobiology of chemically induced disease (morphological and biochemical effects of chemicals, carcinogenesis, teratology, immunotoxicology, cytogenetics); food-borne disease (biochemistry and mechanisms of action of microbial toxins, food additives, naturally occurring toxicants); epidemiology; behavioral toxicology; fate of pesticides in the environment. U.S. citizenship or permanent residence required. To apply, identify area of interest and send résumé, transcripts, and three letters of recommendation to: **Chairperson, Environmental Toxicology Center, University of Wisconsin, 309 Infirmary, Madison, Wis. 53706; telephone: 608-263-4580. Equal Opportunity/Affirmative Action Employer.**

TRAINEESHIP, CANCER RESEARCH. University of Miami Comprehensive Cancer Center. Opportunities available immediately for Ph.D.'s or M.D.'s to obtain 2 years of research in broad range of disciplines related to cancer. Competitive stipends. U.S. citizens and permanent residents. Reply by letter with résumé to: **Dr. Marylou Ingram, Institute for Cell Analysis, UMHC/NCCH D-1, 1475 Northwest 12 Avenue, Miami, Fla. 33101.**

FELLOWSHIPS

The University of Michigan, Positron Emission Tomography Cyclotron Center for Neurological Research, has a **POSTDOCTORAL FELLOWSHIP** position open. Research will involve development of imaginative and rapid syntheses of radiopharmaceuticals containing short-lived positron emitting isotopes for neurological research. Ph.D. in organic or medicinal chemistry required. Salary: \$20,000. Send résumé and three letters of recommendation to: **Richard Ehrenkaufer, University of Michigan Hospital, Division of Nuclear Medicine, Ann Arbor, Mich. 48109. The University of Michigan is an Equal Opportunity/Affirmative Action Employer.**

THE PHILIP E. SCOTT MEMORIAL FELLOWSHIP is available immediately for investigators to work in one of the following disciplines: viral immunology or biochemistry of breast cancer, human genetics, cancer and aging, genetic mutant diseases, mycoplasma infections, and environmental mutagenesis. The fellowship is available for 2 years and includes salary (\$15,000), fringe benefits, and supplies. Send résumé, including a statement of research interests and references, by 31 March 1982 to: **Dr. Arthur E. Greene, Chairman, Search Committee, Institute for Medical Research, Copewood and Davis Streets, Camden, N.J. 08103. An Equal Opportunity/Affirmative Action Employee.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS. Two-year postdoctoral fellowships for research training related to the visual system in developmental biology of basic mechanisms in normal and abnormal retinal development and steroid pharmacology of control of ocular pressure. For U.S. citizens or permanent residents with Ph.D. or M.D. Supported by NIH training grant. Send curriculum vitae to: **Bernard Schwartz, M.D., Ph.D., Chairman and Professor, Department of Ophthalmology, Tufts-New England Medical Center, 171 Harrison Avenue, Boston, Mass. 02111. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP IN NEUROANATOMY

The Department of Anatomy at the Uniformed Services University of the Health Sciences (USUHS) invites applications for postdoctoral training in neuroanatomy. The department has well-established research programs in neurobiology and preferential consideration will be given to applicants with research interests in the vestibular system and/or the basal ganglia. The appointee will be expected to participate in the neuroanatomy teaching program. Interested individuals must have either an M.D. or Ph.D. degree. Applications should be received before 1 April 1982. Send curriculum vitae, bibliography, statement of research experience and interest, and three letters of recommendation to:

**Director, Personnel/Manpower
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FELLOWSHIPS AND RESEARCH ASSISTANTSHIPS for interdisciplinary study in theoretical and experimental biophysical sciences leading to the Ph.D. degree. Research areas include molecular dynamics, membrane processes, biomechanics, molecular contractility, macromolecular conformation, crystallography, relaxation kinetics, and others. Excellent facilities. GRE required. Send inquiry to: **Dr. H. C. Cheung, Graduate Program in Biophysical Science, 520 CHSB, University of Alabama Medical Center, Birmingham, Ala. 35294. An Affirmative Action/Equal Opportunity Employer.**

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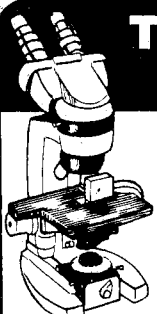
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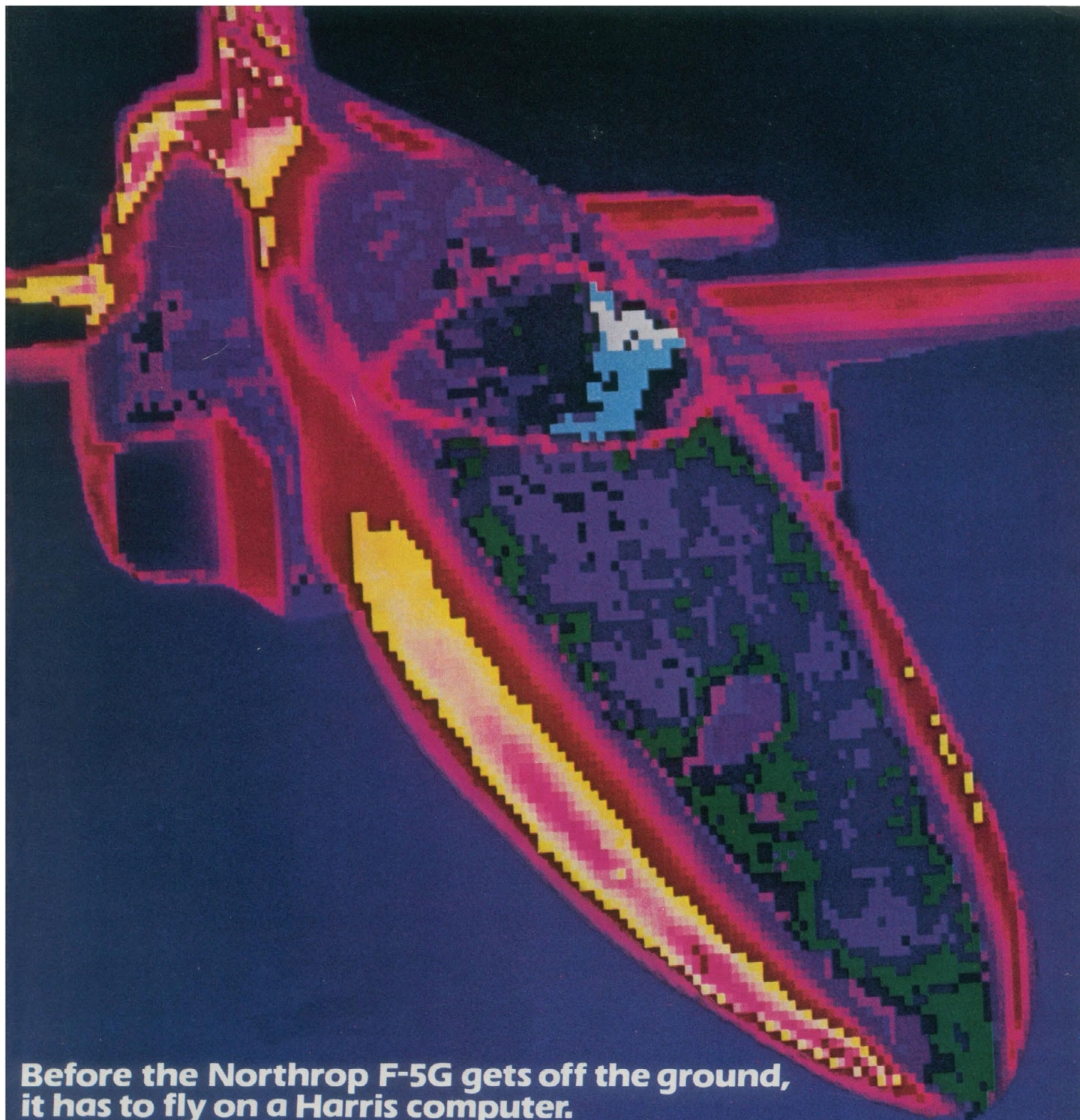
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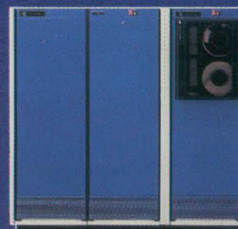
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