Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing, with no abbreviations. Also, personnel advertising is accepted only in the United States and Canada. Advertisers must indicate that the advertiser does not discriminate among applicants on the basis of race, religion, age, color, national origin, handicap, or sexual preference.

CLASSIFIED ADVERTISING DEADLINES:

1 January (mailed 7 January) 23 December
2 January (mailed 14 January) 30 December
28 January (mailed 14 January) 7 February
4 February

POSITIONS WANTED: 40¢ per word, plus $.44 for use of box number, per insertion, $10 minimum, per insertion. Prepayment required. This rate is available only to individuals seeking jobs.

DISPLAY (POSITIONS OPEN, COURSES, FELLOWSHIPS, MARKETPLACE, and so forth): $9 per millimeter. $2.25 minimum, per insertion (minimum charge covers 25 millimeters on a single column; 25 millimeters equals 10 lines of 50 spaces per line). No charge for use of box number. No agency commission for ads less than 1 1/2 inches long. Minimum discount: Prepayment required for all foreign ads. Purchase orders and billing information required for all other advertising.

Send copy for all Positions Wanted ads and Display ads less than 1 1/2 page in size (125 millimeters) to:

SCIENCE, Room 107
1515 Broadway
New York, N.Y. 10036

Phone: 212-734-4556

Send copy for Display ads 1 1/2 page and larger to:

Schenker Associates, Inc.
1515 Broadway
New York, N.Y. 10036

Phone: 212-734-1050

Blind ad replies should be addressed as follows:

Box (give number)

1515 Massachusetts Avenue, NW
Washington, D.C. 20005

Effective 1 January 1983, the display rate for SCIENCE will be $9.80 per millimeter, with a minimum charge of $245 for 25 millimeters.

POSITIONS WANTED

Aquatic Biologist. M.S., benthos specialist, certified fisheries scientist: 11 years of consulting experience; technical and administrative expertise. Any position considered; prefers Midwest, but will relocate. Box: 321, SCIENCE. X

Biochemist. Ph.D. 1972. Frustrated academic seeking career in industry/medical research. My expertise is in biochemical and genetic manipulation of yeast (E. coli). Email developing and perfecting analytical equipment and techniques. Working in a stimulating team atmosphere with both bench and supervisory duties would be ideal. I would welcome the opportunity to pursue my product/research ideas to our mutual benefit. Box: 336, SCIENCE. X


Cytogeneticist. Ph.D. 1975. Seeks position in industry, university, or research institute. Eight years of research experience in Germany, France, Egypt. Blood cell culture, leukocytes of various phenotypic foreign animals. Mutagenic action of drugs. Chemical and radiation structure and function. Special interest in chromosomes and chromosomal aberrations using Banding, the system of embryo culture in rotating bottles, sister chromatid exchanges, and chromosomal aberrations in extraembryonic tissues of pregnant rats and mice. Box 332, SCIENCE.

Endocrinologist. Ph.D. Seeks research/teaching position. Thirteen years of postdoctoral work on neuropeptides, HPLC, bioassay, RIA, TEM techniques. Teach human anatomy/physiology. Box 339, SCIENCE.

Immunologist. Ph.D. Extensive research experience on the secrets of artificial immune and ELISA assays, development, and CIC assays. Seeks mid-level position in industry/academic research institute. Box 337, SCIENCE.

Marrow Transplantation/Radiobiologist. Ph.D. Experienced researcher with excellent track record for grant support and publications, seeks change of environment to institute or medical center with a positive career development program. Has lab experience in radiation effects on hematopoietic stem cell and leukemia viruses, immunology of marrow transplantation, GVH and GVL reactions, and monoclonal antibodies. Experience as a research developer, in training of pre- and postdoctoral fellows, and teaching of radiobiology and cell physiology at graduate and undergraduate levels. Box 334, SCIENCE.

Medical Technologist (ASCP); B.S. biochemistry and biology. Experience in all phases of general clinical laboratory diagnosis and analysis. Seeks medical laboratory position with hospital, clinic, medical team, or refugee relocation center located in Southeast Asia or South Pacific, especially Indonesia, Malaysia, Burma, or Philippines. Box 331, SCIENCE. X

Physiologist. Two years of postdoctoral training in biochemistry of basement membrane components, preparative, analytical, and HPLC techniques. Seeks teaching or research position nationwide or overseas. Box 338, SCIENCE.

Translator. Scientific Russian. Options: bibliography, abstracts, full text, also literature search. Science Ph.D., Russian minor. Box 330, SCIENCE. X

DEPARTMENT OF CHEMISTRY, UNIVERSITY OF CALIFORNIA, BERKELEY

Applications are invited for several anticipated positions at the level of ASSISTANT PROFESSOR OF CHEMISTRY, beginning fall 1983. We are interested in an outstanding, distinguished individual with a strong record of accomplishment in teaching and research. Our priorities include analytical, biophysical, inorganic, organic, physical, solid-state, and theoretical chemistry. Appointments with tenure are possible at ASSOCIATE PROFESSOR or FULL PROFESSOR for persons with outstanding qualifications and sufficient experience in analytical, biological, or organic chemistry. Candidates should submit curriculum vitae (including a list of publications and a summary of their teaching and research objectives), and request three letters of recommendation. Applications should be addressed to: Professor W. I. F. Bagg, Head, Department of Chemistry, University of California, Berkeley, California 94720. Deadline for receipt of applications is 1 February 1983. An Equal Opportunity/Affirmative Action Employer.
THE ONTARIO CANCER INSTITUTE

MOLECULAR AND CELLULAR BIOLOGISTS

Candidates are invited to apply for two indefinite tenured senior staff positions in the Division of Biological Research of the Ontario Cancer Institute. The Division comprises 14 senior staff investigators conducting research in molecular genetics, immunology, hemopoiesis, cell biology, and clinical epidemiology.

Candidates should have a doctorate and appropriate postdoctoral experience allowing for appointment to the Graduate Faculty of the University of Toronto. The successful applicant will be expected to carry out independent and collaborative research. Selection will be performed principally on the basis of excellence; however a commitment to cancer research compatible with the goals of the division is essential.

Salary negotiable, depending on experience. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

Applicants should submit curriculum vitae, bibliography, and the names of three referees, prior to 29 January 1983 to: E. A. McCulloch, M.D., Head, Division of Biological Research, The Ontario Cancer Institute, 500 Sherbourne Street, Toronto, Ontario, Canada M4X 1K9.

24 DECEMBER 1982
DEPARTMENT OF BIOLOGY MCGILL UNIVERSITY

Applications are invited for three tenure-stream positions at the assistant professor level, effective August 1983.

McGill—Two positions. Principal areas of interest are human genetic, neurobiology, plant biology, and genome engineering.

PLANT ECOLOGY: One position. Area of specialization open. Interested applicants should forward curriculum vitae, to: Department of Biology, McGill University, 1205 Avenue Dr. Penfield, Montreal, Quebec, Canada H3A 1B1. Deadline is 28 February 1983. McGill is an English language university and has a strong commitment to excellence in both teaching and research. In accordance with Canadian Immigration regulations applicants who are Canadian citizens or landed immigrants will be considered first in these competitions.


CANCER RESEARCH ASSOCIATE—Ph.D. or M.S. in immunology, virology or tumor immunology. Transplantations, tissue culture preferred. Applicants should send curriculum vitae to: Harry L. Isaacson, M.D., Director of Laboratories, Lenox Hill Hospital, 100 East 77 Street, New York, N.Y. 10021. An Equal Opportunity Employer.

CELL AND MOLECULAR BIOLOGY. A senior staff position is available in a Molecular Biology Department working on mammalian biochemical and molecular genetics. We are seeking a person with an established research program in cell genetics, or cell and molecular biology, who complements the present programs in our department. Established investigators with demonstrated ability to initiate and maintain a strong research program are invited to apply. Applicants should send curriculum vitae, a brief statement of research interests, and names of three references to: Dr. Verne M. Chapman, Department of Molecular Biology, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, New York 14263. An Equal Opportunity Employer, M.F.

CELLULAR PHYSIOLOGIST. Teaching and research experience emphasized. For participation in current work on cell culture of transformed cells. Please apply to: The Chairman, Physiology Department, Ponce School of Medicine, P.O. Box 7004, Ponce, P.R. 00732-7004.

CHAIRMAN DEPARTMENT OF ANATOMY THE UNIVERSITY OF WESTERN ONTARIO The Faculty of Medicine of the University of Western Ontario invites applications and nominations for the chairmanship of its Department of Anatomy. The successful candidate is expected to have a comprehensive program in mammalian biochemical and molecular genetics. We are seeking a person with an established research program in cell genetics, or cell and molecular biology, who complements the present programs in our department. Established investigators with demonstrated ability to initiate and maintain a strong research program are invited to apply. Applicants should send curriculum vitae, a brief statement of research interests, and names of three references to: Dr. M. J. Hollenberg, Dean of Medicine Health Sciences Addition The University of Western Ontario London, Ontario, Canada N6A 5C1

Applications and nominations require that Canadian and Landed Immigrants be given preference.

The University of Western Ontario is an Equal Opportunity Employer.

BIOLOGIC PATHWAYS TO NON VASCULAR PLANTS

Position Open

The Department of Biology, University of Minnesota, seeks a candidate for a tenure-track assistant professor position. The candidate will be expected to teach courses in plant biology, including evolutionary aspects of plant biology. The successful candidate will be expected to contribute to teaching in the undergraduate program and will be encouraged to develop a program of research in an area of interest. Applications should include: curriculum vitae, statement of research interests, three references, and copies of recent publications.

The University of Minnesota is an Equal Opportunity Employer.

POSITIONS OPEN

BIOLOGIC PATHWAYS TO NON VASCULAR PLANTS

Position Open

The Department of Biology, University of Minnesota, seeks a candidate for a tenure-track assistant professor position. The candidate will be expected to teach courses in plant biology, including evolutionary aspects of plant biology. The successful candidate will be expected to contribute to teaching in the undergraduate program and will be encouraged to develop a program of research in an area of interest. Applications should include: curriculum vitae, statement of research interests, three references, and copies of recent publications.

The University of Minnesota is an Equal Opportunity Employer.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES SCHOOLS OF MEDICINE

Applications are invited to fill a tenured endowed professorship called the JENNIFER JONES SIMON CHAIR IN BIOPHYSICS, DEPARTMENT OF RADIOLOGICAL SCIENCES at the UCLA School of Medicine. The endowment will be used to support the appointee's research, which should be focused on both the normal and abnormal functioning of the human body involving, at least initially, the applications of the nuclear medicine technique of positron emission tomography.

Highest priority will be accorded to applicants who have helped develop or have utilized emission tomographic and other comparably promising methods in nuclear medicine in the field of basic and/or clinical neuroscience research and who have demonstrated some of the potential that these methods may have for contributing to the understanding of brain and behavior and related diseases. The Jennifer Jones Simon Professor is expected to qualify for appointment at the highest academic rank obtainable.

Applications should include a resume or curriculum vitae and the names of at least three referees to the Search Committee chairman:

Dr. Carmine D. Clemente Director, Brain Research Institute UCLA School of Medicine Los Angeles, California 90024

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

COMPARATIVE PHYSIOLOGY The Department of Zoology, University of Florida, has a tenure-track position available for an assistant or associate professor, whose field of research is COMPARATIVE PHYSIOLOGY OF MARINE OR FRESHWATER INVERTEBRATES. Individuals who are interested in an evolutionary and/or ecological approach are particularly encouraged to apply. The Department of Zoology has a close contact between its developing program in ecological physiology and its traditional strengths in evolutionary and comparative physiology. The successful candidate will be expected to contribute to teaching in the undergraduate program and will be encouraged to develop a program of research in his/her choosing. Candidates must submit curriculum vitae, a statement of research interests, a selected set of relevant publications, and the names of at least three references to:

Dr. Brian K. McNab Physiology Search Committee Department of Zoology University of Florida Gainesville, Fla. 32611

by 15 February 1983. The University of Florida is an Equal Opportunity/Affirmative Action Employer.

The University of Florida is an Equal Opportunity/Affirmative Action Employer.
RECOMMENDATIONS AND NOMINATIONS

The University of Texas at Dallas invites nominations and applications for the position of Dean of the School of Human Development. The University of Texas at Dallas invites nominations and applications from individuals who have demonstrated excellence in research, teaching, and service. The University of Texas at Dallas is an Equal Opportunity/Affirmative Action Employer.

The position requires a Ph.D. in Human Development or a closely related field. The successful candidate will have a strong record of research, teaching, and service. The candidate should be a leader in the field of Human Development and have a demonstrated commitment to diversity and inclusivity.

Applications and nominations should be sent to: Dr. John L. Puckett, Chair, Search Committee. The search will continue until a suitable candidate is selected.

The University of Texas at Dallas is an equal opportunity employer.

POSTDOCTORAL RESEARCH ASSOCIATE

BIOLOGY FACULTY POSITIONS

The Department of Biology at Texas A&M University invites applications for the following tenure-track positions starting fall 1983.

Assistant Professor: Developmental Biology.

Assistant Professor: Neurobiology.

Assistant Professor: Molecular Biology.

Assistant Professor: Cell Biology.

Assistant Professor: Genetics.

Assistant Professor: Ecology.

Assistant Professor: Evolutionary Biology.

Assistant Professor: Biophysics.

Assistant Professor: Biochemistry.

Assistant Professor: Microbiology.

Assistant Professor: Microbiology.

Assistant Professor: Immunology.

Assistant Professor: Genetics.

Assistant Professor: Cell Biology.

Assistant Professor: Developmental Biology.

Assistant Professor: Neurobiology.

Assistant Professor: Molecular Biology.

Assistant Professor: Cell Biology.

Assistant Professor: Evolutionary Biology.

Assistant Professor: Biophysics.

Assistant Professor: Biochemistry.

Assistant Professor: Microbiology.

Assistant Professor: Microbiology.

Assistant Professor: Immunology.

Assistant Professor: Genetics.

Assistant Professor: Cell Biology.

Assistant Professor: Developmental Biology.

Assistant Professor: Neurobiology.

Assistant Professor: Molecular Biology.

Assistant Professor: Cell Biology.

Assistant Professor: Evolutionary Biology.

Assistant Professor: Biophysics.

Assistant Professor: Biochemistry.

Assistant Professor: Microbiology.

Assistant Professor: Microbiology.

Assistant Professor: Immunology.

Assistant Professor: Genetics.

Assistant Professor: Cell Biology.

Assistant Professor: Developmental Biology.

Assistant Professor: Neurobiology.

Assistant Professor: Molecular Biology.

Assistant Professor: Cell Biology.

Assistant Professor: Evolutionary Biology.

Assistant Professor: Biophysics.

Assistant Professor: Biochemistry.

Assistant Professor: Microbiology.

Assistant Professor: Microbiology.

Assistant Professor: Immunology.

Assistant Professor: Genetics.

Assistant Professor: Cell Biology.

Assistant Professor: Developmental Biology.

Assistant Professor: Neurobiology.

Assistant Professor: Molecular Biology.

Assistant Professor: Cell Biology.

Assistant Professor: Evolutionary Biology.

Assistant Professor: Biophysics.

Assistant Professor: Biochemistry.

Assistant Professor: Microbiology.

Assistant Professor: Microbiology.

Assistant Professor: Immunology.

Assistant Professor: Genetics.

Assistant Professor: Cell Biology.

Assistant Professor: Developmental Biology.

Assistant Professor: Neurobiology.

Assis
An Equal Opportunity Employer

ENVIRONMENTAL SYSTEMS ANALYST

ESRI—Australia, the country’s major proponent and supplier of environmental modeling and geographic information systems, seeks a highly qualified and motivated senior environmental systems analyst. The successful candidate will hold a graduate degree in environmental science, engineering, or related field. The position could be based in either Melbourne or Perth, with considerable interstate travel required. For the senior nature of the position, an attractive remuneration package is offered. Send résumé and names of three references to: Dr. S. R. Koesel, Managing Director, ESRI, 2003 A. Wallace Building, 900 East Grand Avenue, Des Moines, Iowa 50319. Applications must be received by 21 January 1983.

EUKARYOTIC MOLECULAR GENETICIST

The Department of Biology, University of California, Riverside, seeks an eukaryotic molecular geneticist for a tenure-track position starting 1 July 1983. Appointment will be at the assistant professor level. Preference will be given to a geneticist interested in the structure, evolution, and/or regulation of eukaryotic genes. Successful applicants should be expected to develop a vigorous research program, supervise graduate students in master’s and doctoral programs, and teach at both the undergraduate and graduate levels. Postdoctoral experience is highly desirable. Applicants should send curriculum vitae, copies of research papers, and the goals and grants of scientific papers, and at least three letters of reference to: Professor Vaughn Shoemaker, Chairman, Department of Biology, University of California, Riverside, California 92521. The University of California is an Equal Opportunity/Affirmative Action Employer. Applications are invited from all qualified individuals.

IMMUNOLOGIST

Assistant or associate professor, dependent upon qualifications. Tenure-track appointment. Ph.D., preferably in microbiology, required. Experience to teach immunology to medical students and a graduate immunology course required. Research space provided in a new medical school building. A strong commitment to complete independent research required. Prefer research interests to include hybridoma methodology, bacterial antigen isolation and purification, and development of assays for infectious diseases. Inter- and intra-departmental research is encouraged. Salary will be commensurate with qualifications. Applications and three letters of reference to: Department of Pathology, University of California, San Francisco, California 94143. Review of applications will begin 15 March 1983. An Equal Opportunity/Affirmative Action Employer.

M.E./PHYSICIST

We are a manufacturer of radiation detection equipment, looking for the right person to join our operation. This would include but not be limited to product engineering, materials and component analysis, and yield analysis. Prior experience in a manufacturing environment (5 years minimum), per- sonal computer familiarity, and B.S. degree required. A B.S. degree in metallurgy or a related field is also required. Send resume to: Dr. D. W. Lambe, Jr., Chairman, Department of Metallurgy, Texas A & M University, College Station, Texas 77843. Fax: 713-845-1777. Please send résumé with salary requirements to: Seaborg, 11286 Groovia Road, Cincinnati, Ohio 45242.

M.E./PHYSICIST

We are a manufacturer of radiation detection equipment, looking for the right person to join our operation. This would include but not be limited to product engineering, materials and component analysis, and yield analysis. Prior experience in a manufacturing environment (5 years minimum), per- sonal computer familiarity, and B.S. degree required. A B.S. degree in metallurgy or a related field is also required. Send resume to: Dr. D. W. Lambe, Jr., Chairman, Department of Metallurgy, Texas A & M University, College Station, Texas 77843. Fax: 713-845-1777. Please send résumé with salary requirements to: Seaborg, 11286 Groovia Road, Cincinnati, Ohio 45242.
PUBLIC SYNTHESIS
Educator and University
manage and serve
ular interests, of

dent program.

The Department of Biochemistry, University of Minnesota, invites applications for a tenured position for an associate professor of biochemistry. Applicants must have a track record of outstanding research and teaching in biochemistry. Duties include teaching, research, and service to the department. Applicants should have a Ph.D. degree or equivalent qualifications. Salary is competitive. Inquiries about the position should be sent to: Dr. Donald A. Landry, Chair, Search Committee.

**PLANT MOLECULAR OR DEVELOPMENTAL BIOLOGIST.** The position is available in the Department of Botany, University of Minnesota, to work on the molecular and developmental aspects of plant biology. Applicants should have a Ph.D. degree or equivalent qualifications in plant biology or a closely related field. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL RESEARCH ASSOCIATE.** Positions are available in the laboratories of Drs. J. K. Sharp, Department of Botany, University of Minnesota, and Dr. D. A. Landry, Department of Biochemistry, University of Minnesota. Applicants should have a Ph.D. degree or equivalent qualifications in plant biology or biochemistry. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**DIRECTOR OF THE INSTITUTE FOR RESEARCH IN MICROBIOLOGY.** The Institute for Research in Microbiology is seeking an experienced microbiologist to lead the institute. Applicants should have a Ph.D. degree or equivalent qualifications in microbiology. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN MICROBIOLOGY.** The Department of Microbiology, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in microbiology. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN IMMUNOBIOLOGY.** The Department of Immunobiology, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in immunobiology. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN MOLECULAR OR BIOCHEMISTRY.** The Department of Biochemistry, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in molecular or biochemistry. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN PLANT DEVELOPMENTAL BIOLOGY.** The Department of Botany, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in plant developmental biology. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN PLANT MOLECULAR OR BIOCHEMISTRY.** The Department of Biochemistry, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in plant molecular or biochemistry. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN PLANT IMMUNOBIOLOGY.** The Department of Immunobiology, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in plant immunobiology. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN PLANT MOLECULAR OR DEVELOPMENTAL BIOLOGY.** The Department of Botany, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in plant molecular or developmental biology. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN PLANT BIOCHEMISTRY.** The Department of Biochemistry, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in plant biochemistry. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN PLANT IMMUNOBIOLOGY.** The Department of Immunobiology, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in plant immunobiology. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN PLANT MOLECULAR OR BIOCHEMISTRY.** The Department of Biochemistry, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in plant molecular or biochemistry. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN PLANT IMMUNOBIOLOGY.** The Department of Immunobiology, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in plant immunobiology. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.

**POSTDOCTORAL FELLOWSHIP IN PLANT MOLECULAR OR BIOCHEMISTRY.** The Department of Biochemistry, University of Minnesota, invites applications for a fellowship position in the laboratory of Dr. J. K. Sharp. Applicants should have a Ph.D. degree or equivalent qualifications in plant molecular or biochemistry. Duties include teaching, research, and service to the department. Salary is competitive. Inquiries about the position should be sent to: Dr. J. K. Sharp, Chair, Search Committee.
Molecular Genetics. A staff position is available in a Molecular Biology Department which has a commitment to mammalian biochemistry and molecular genetics. We are seeking a person with experience in molecular biology and/or retrovirus. Preference is given to applicants who have a Ph.D. or M.D. and can develop a research program in our department. Applicants should send curriculum vitae, a brief statement of research interests and names of references to: Dr. Verne M. Chapman, Department of Molecular Biology, The University of Texas, Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, Texas 75235.

Organometallic or Inorganic Chemist

Tenure-track position at the assistant professor level starting fall 1983. Ph.D. required. Applicants should have research experience in organometallic chemistry and/or high pressure liquid chromatography, and teaching ability at both introductory and advanced levels. Applications, curriculum vitae, outline of research plans, and names of references, including letter should be sent to: Professor Thomas Schieck, Chairperson, Department of Change and Development, University of California, 95016. Complete application materials should be received by 1 February 1983. The University of California is an Affirmative Action/Equal Opportunity Employer.

Physicist/Engineer

We are a manufacturer of dosimeters and portable radiation detection instrumentation. We require an experienced (3 to 5 years) physicist to support our dosimetry activities. Minimum requirement is a B.S. degree in physics. (Familiarity with ion chamber design and Beta Dosimetry is a definite plus.) Will interface closely with electronic engineers. Send all responses with salary history to: Dosimeter Corporation, 11286 Grooms Road, Cincinnati, Ohio 45244. Attention: Ed Shernoff.

Position in Plant Genetics

Harvard University

The Department of Organismic and Evolutionary Biology at Harvard University seeks one or more persons with a strong background in molecular genetics as well as experience in the genetics of plants at either the assistant or associate professor level. The position involves teaching and research. Preference will be given to candidates who are (i) addressing problems unique to plant life or for which plants are particularly amenable and (ii) who are working at organismal or population levels, and/or who are evolutionary biologists. Letters of application, curriculum vitae, and names and addresses of three references should be sent by 31 January 1983 to: Professor Peter S. Ashworth, School of Arts and Sciences, 22 Divinity Avenue, Cambridge, Massachusetts 02138.

Harvard is an Affirmative Action/Equal Opportunity Employer.

Postdoctoral Fellow

Two-year appointment available immediately for basic and clinical studies of physiology of endorphin-related peptides in pain, stress, and mental disorders. Background in peptide chemistry is required, including familiarity with radioimmunoassay, gel chromatography, ion exchange chromatography, and high pressure liquid chromatography. Salary: $18,000. Send curriculum vitae and three letters of reference to: R. S. Kiser, M.D., Department of Biophysics, University of Michigan Health Science Center, 5323 Harry Hines Boulevard, Dallas, Texas 75235. Equal Opportunity Employer.

Postdoctoral Scientist

Position available for participation in studies of hormonal regulation of prostate cell function in aging. We are seeking an individual with a background in molecular biology and having postdoctoral experience with in vitro translation. The position is in the Department of Cellular Biology at Southern Methodist University. Information and applications should be sent to: Dr. Thomas S. P. SIPKES, Department of Cellular Biology, Southern Methodist University, Dallas, Texas 75275. We are an Equal Opportunity/Affirmative Action Employer.

Postdoctoral position will be available immediately for studying the genetics of influenza virus. Preference is given to applicants who have a Ph.D. in molecular genetics, microbiology, or virology. The appointment will begin in the Fall of 1983. Send curriculum vitae, letter of reference, and salary requirements to: Dr. M. R. H. Hantaan, Department of Microbiology, The University of Texas, Southwestern Medical Center, Dallas, Texas 75235. We are an Equal Opportunity/Affirmative Action Employer.

Postdoctoral position is available immediately for studying the structure and organization of the chick myosin heavy chain gene family. Clones were obtained by screening a Lambda genome library. Applicants interested in biochemical aberrations in the genetic muscular dysrophies are encouraged to apply. Send curriculum vitae and names of references to: Dr. R. D. Young, Department of Biological Sciences, University of Alabama in Huntsville, Alabama 35809. The University of Alabama in Huntsville is an Affirmative Action/Equal Opportunity Employer.

Postdoctoral position available immediately for studying the structure and organization of the chick myosin heavy chain gene family. Clones were obtained by screening a Lambda genome library. Applicants interested in biochemical aberrations in the genetic muscular dysrophies are encouraged to apply. Send curriculum vitae and names of references to: Dr. R. D. Young, Department of Biological Sciences, University of Alabama in Huntsville, Alabama 35809. The University of Alabama in Huntsville is an Affirmative Action/Equal Opportunity Employer.

Postdoctoral position is available immediately for studying the structure and organization of the chick myosin heavy chain gene family. Clones were obtained by screening a Lambda genome library. Applicants interested in biochemical aberrations in the genetic muscular dysrophies are encouraged to apply. Send curriculum vitae and names of references to: Dr. R. D. Young, Department of Biological Sciences, University of Alabama in Huntsville, Alabama 35809. The University of Alabama in Huntsville is an Affirmative Action/Equal Opportunity Employer.

Postdoctoral position available immediately for studying the structure and organization of the chick myosin heavy chain gene family. Clones were obtained by screening a Lambda genome library. Applicants interested in biochemical aberrations in the genetic muscular dysrophies are encouraged to apply. Send curriculum vitae and names of references to: Dr. R. D. Young, Department of Biological Sciences, University of Alabama in Huntsville, Alabama 35809. The University of Alabama in Huntsville is an Affirmative Action/Equal Opportunity Employer.
**AFOSR SCEE**

**Summer Research Opportunities**
**Faculty & Graduate Students**

**1983**

The USAF Summer Faculty Research Program (SFRP), sponsored by the Air Force Office of Scientific Research (AFOSR) and conducted by the Southeastern Center for Electrical Engineering Education (SCEE), provides research opportunities for qualified faculty and graduate students of U.S. Colleges and Universities. These opportunities consist of ten week summer research periods at one of 20 USAF Laboratories/Centers throughout the U.S. with follow-on research opportunities being available through other AFOSR and SCEEE programs. Under exceptional circumstances the ten week research period may be during the regular academic year. Prerequisites for appointment: (1) U.S. Citizenship, (2) Faculty or graduate student status at an accredited U.S. College or University. All qualified applicants will receive consideration without regard to race, color, religion, sex, or national origin. Preference will be given to applicants having no previous research sponsored by the Air Force. 

SCEE Supports equal opportunity/affirmative action. 

**Application Deadline:** February 1, 1983

For Further Information Contact: SCEE Management Office OR CALL: (305) 892-6146

1101 Massachusetts Ave.
St. Cloud, Fl 32769

---

**TASMANIAN COLLEGE OF ADVANCED EDUCATION**

**AQUACULTURE**

**LECTURER II/Senior Lecturer II**

(Reference Number 14882)

The Tasmanian College of Advanced Education is a multidisciplinary college situated in Launceston (population: 84,000, in the Greater Launceston Area) on the Tamar River. Degree or diploma level studies are offered in administration, applied science, art, education, engineering, environmental design, general studies, music, nursing, and social work. Current enrollments are in excess of 2,100 and this is expected to rise to 2,500 by 1984.

The successful applicant will lecture and demonstrate in his/her area of expertise within the associate diploma of applied science (aquaculture) and B.App.Sc. (general science), and contribute to the School’s research programme in aquaculture. Liaison with aquaculture industries and professional associations will also be required. If an appointment is made at senior lecturer level, the successful candidate could be asked to co-ordinate the associate diploma in aquaculture.

Applicants should possess a higher degree, preferably a Ph.D., in one of the following areas: vertebrates, particularly trout, or molluscs, particularly oysters, or crustaceae. Lecturing and consulting experience would be an advantage.

Initially the appointment will be for a 3-year contract, supported by a grant from the Rural Credits Development Fund. The position will then be examined with a view to offering a tenable post.

The successful candidate will be expected to commence duties by July 1983.

**SALARY:**
Lecturer II—A$22,430 to A$25,648, per annum.
Lecturer I—A$26,251 to A$29,467, per annum.
Senior Lecturer II—A$30,096 to A$32,226, per annum.

Enquiries of an academic/professional nature should be directed to the Head of the School of Applied Science, Dr. A. Osborn, telephone: 003-26-0214.

Applications quoting the above reference number, and including the names and addresses of three referees, should be forwarded to:

The Registrar
Tasmanian College of Advanced Education
P.O. Box 1214
Launceston, Tasmania 7250
AUSTRALIA

**CLOSING DATE:** 1 February 1983.

---

**DIRECTOR INSTITUTE FOR ADVANCED BIOMEDICAL RESEARCH**

The Oregon Health Sciences University is seeking a director of exceptional caliber for its newly established and endowed Institute for Advanced Biomedical Research. The research of the institute will focus on basic approaches to a frontier field of biomedical investigation with emphasis on the techniques of molecular biology. A new building of 60,000 square feet on the university campus is being planned to house the institute. It will be an integral part of the university, and there will be excellent opportunities for interactions with existing departments and graduate programs.

The director will be expected to define specific research goals and focus, to identify appropriate staff and to help in the internal design of the building and the establishment of appropriate administrative and fiscal control.

Qualifications for this position include a very strong current record of creative research, willingness and aptitude to handle the necessary administrative aspects and particularly the ability to attract and nurture an exciting group of research colleagues.

All applications submitted by Feb. 15, 1983 will be considered.

Interested persons or nominators should address enquiries for additional information to:

Professor Howard S. Mason, Chairman
Search Committee for the Director/IBAR
THE OREGON HEALTH SCIENCES UNIVERSITY
3181 S.W. Sam Jackson Park Road
Portland, Oregon 97201

an equal opportunity/affirmative action employer

---

**ADDITIONAL CHAIR OF MATHEMATICS**

Applications are invited from suitably qualified persons, regardless of sex, race, religion, colour or national origin, for appointment to the above post. The successful applicant will be expected to participate fully in both the teaching and research activities of the Department. Master of Science programmes by course work and dissertation are encouraged.

The incumbent may be expected to assume the Headship of the Department on a rotation basis with other professors of the Department. The salary attached to the post will be within the range: R23 109 — R30 255 per annum. A contract appointment could be negotiated.

Intending applicants should obtain the information sheet relating to this post from the Registrar (Planning and Steering), University of the Witwatersrand, 1 Jan Smuts Avenue, Johannesburg 0101, South Africa, with whom all applications should be lodged not later than 15 January 1983.

**UNIVERSITY OF THE WITWATERSRAND,**

**JOHANNESBURG**
POSTDOCTORAL POSITIONS

(i) TROPICAL ECOLOGIST to coordinate and implement field studies on the role of environmental limiting factors in the growth of tropical forest tree seedlings, Hojas Island, Panama. Must have experience in plant growth studies. Background in physiological plant ecology is preferred. Tropical experience desirable but not essential. (ii) PHYSIOLOGICAL ECOLOGIST to work with interdisciplinary research team investigating water use, nitrogen fixation, and plant productivity in woody desert legumes. Must have extensive experience in plant water relations studies. Familiarity with CO2 gas exchange techniques desirable. Send letter describing research experience with curriculum vitae and three letters of recommendation by 31 January 1983 to: Dr. A. Rundel, Laboratory of Biomedical and Environmental Sciences, University of California, 990 Veteran Avenue, Los Angeles, Calif 90034. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available March 1983 for a Ph.D. in biochemistry. Experience in enzymology and protein chemistry is desirable. Research focuses on molecular properties of phosphofructokinase relevant to modulation of its function and the effect of hormones on enzyme activity. Send curriculum vitae, list of publications, and names of three references to: Dr. C. I. Imboden, Department of Pharmacology, Stanford University, Stanford, Calif. 94305.

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately for studies in transplanation interactions. This project involves immune suppression/immunological phenomena. Send curriculum vitae, names of three references to: Dr. C. I. Imboden, Department of Pharmacology, Stanford University, Stanford, Calif. 94305.

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately for studies in transplanation interactions. This project involves immune suppression/immunological phenomena. Send curriculum vitae, names of three references to: Dr. C. I. Imboden, Department of Pharmacology, Stanford University, Stanford, Calif. 94305.

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately for research on intercellular communication in myelinated and demyelinated nerve fibers. Send curriculum vitae and names of three references to: Dr. D. J. Bowes, Gray School of Medicine, 4251 Medical Center of North Carolina, 27718. An Equal Opportunity/Affirmative Action Employer.

RESEARCHER

The applicant will participate in projects dealing with the regulation of growth of normal and neoplastic cell lines. Specific skills required are: protein purification techniques; antitumor production and radioimmunounassays; the use of high-speed centrifuges, spectrophotometry, and ion exchange columns; growth of cells in tissue culture. Must have Ph.D. in microbiology and 1 year of experience. Also, must be able to perform protein purification and be in monoclonal antibodies. Fortytwo hours per week; $26.25 per hour. Please contact: Dr. W. G. Jordan, The University of Maryland School of Medicine, 520 Yawkey Street, Jackson, Miss. 312925. An Equal Opportunity Employer. Job Order Number 112443.

RESEARCH ASSOCIATE. Peptide chemist, Ph.D. February 1983. Peptide synthesis, insulin hybrids. Send resume and two letters of recommendation to: Dr. J. C. Hall, Department of Chemical Engineering, University of Michigan, Ann Arbor, Mich. 48104. An Equal Opportunity/Affirmative Action Employer, M/F.

RESEARCH/TEACHING POSITION IN PHYSICAL THERAPY. Appointment for the 1983-1984 academic year available in Department of Physical Therapy. Areas of research must be in field related to physical therapy. Ability to establish independent research project(s) and to obtain extramural funding desirable. Areas of teaching should be in area of expertise and complementary to present faculty. Position provides opportunity for those seeking invitation to do research while on sabbatical leave or as a postdoctorate. Salary negotiable; academic rank negotiable. Send curriculum vitae, letters of reference to: Dr. J. C. Hall, Department of Chemical Engineering, University of Michigan, Ann Arbor, Mich. 48104. Telephone: 606-785-9470. An Equal Opportunity/Affirmative Action Employer.

SENIOR TENURE-TRACK PROFESSORIAL POSITION AT THE INSTITUTE OF PARASITOLOGY OF MCGILL UNIVERSITY. Applicants must have an established reputation with an acknowledged expertise in one or more biological disciplines or specialties in parasitology. The successful applicant will also be a candidate for the directorship of the Institute, and therefore should have demonstrated administrative ability. Latest date of appointment is 1 September 1983. Preference will be given to Canadian citizens. Applications must be received at McGill University, 3451 University Street, Montreal, Quebec, Canada H3A 2A7. A position is open in the Department of Bacteriology, School of Veterinary Medicine, University of Minnesota, St. Paul, to study the role of microbial flora in the development of the enterocolitis syndrome in neonatal pigs. The salary is $18,000. For further information, contact Dr. A. T. M. de Vries, Head of the Department. An Equal Opportunity Employer.

RESEARCH FACULTY POSITION IN PHYSICAL OCEANOGRAPHY

The School of Oceanography invites applications for a research faculty position in physical oceanography. The successful applicant is expected to have a strong background in theoretical oceanography, though applications from qualified persons with other specializations may be considered. Candidates with Ph.D. or equivalent qualifications will be expected to develop a funded research program. Some teaching assignments are also expected. Applications must be received by 1 March 1983. Questions and further details should be directed to: Dr. J. C. Hall, Division of Physical Sciences, The University of Washington, Box 352500, Seattle 35, Wash. 98195. An Equal Opportunity/Affirmative Action Employer.

VIROLOGIST

Applications are invited for two tenure-track positions in virology at the graduate level. Preference will be given to persons doing research in the molecular tumor virology and bacteriophage areas. Outstanding candidates in other areas of animal virology will also be considered. Successful applicants will be expected to mount a high quality research program. Teaching duties are expected. Applications, including the names of three references, should be sent by 14 January 1983 to Dr. J. C. Hall, Division of Physical Sciences, The University of Washington, Box 352500, Seattle 35, Wash. 98195. An Equal Opportunity/Affirmative Action Employer.

TECHNOLOGY TRANSFER

UNIVERSITY PATENTS, INC. is seeking a senior professional (M.D., D.V.M., or Ph.D.) with broad experience in life sciences. Activities include on-site investigator interviewing and technology tracking at client universities, disclosure evaluation, invention presentation and licensing. Patent familiarity a plus. Experience in commercialization. Preference from academia and industry will be considered. Salary commensurate with experience. Send curriculum vitae to: L. W. Miles, President, P.O. Box 6800, Norwalk, Connecticut 06852. An Equal Opportunity Employer, M/F.
The MX Missile and the Strategic Balance of Power

A collection of recent articles from SCIENCE on contemporary strategic ideology is now available for use by professionals, teachers, and researchers interested in the nuclear arms race.

"Anyone seeking a better understanding of the MX debate would do well to look at [this] series of brief, clearly written analyses."

— The Boston Globe

Topics include:
The discovery of Soviet missile accuracy in 1977; the search for secure MX basing; the development of a new ballistic missile defense; the effectiveness of an undersea deterrent; and the impact of the MX on arms control efforts. An up-to-date introduction has been prepared by News & Comment writer R. Jeffrey Smith.

Single copies, $1.00; twenty or more, $.50 each.

Orders under $10.00 must be prepaid.

Write to:
AAAS
Dept. MX
1515 Massachusetts Ave., N.W.
Washington, D.C. 20005

SALES MANAGER
Extensive Travel

Springborn Institute For Bioresearch, Inc., an expanding contract service laboratory, seeks a sales professional capable of initiating and closing the sale of toxicological testing services to the pharmaceutical, chemical, and personal care products markets. This position requires excellent verbal and written communication skills; a working knowledge of the concepts and terminology of the toxicological testing/services business; and provides salary commensurate with experience, company car, and an excellent benefits package.

Springborn Institute For Bioresearch, Inc., Spencerville, Ohio is a subsidiary of Springborn Group, Inc., an international firm providing services to the plastics and chemicals industries in R&D, testing, analytical and market research.

Resumes specifying salary requirements may be forwarded to: C.S. Cridler-Smith, Manager of Human Resources, Springborn Group, Inc., One Springborn Center, Enfield, CT 06082. An equal opportunity/affirmative action employer m/f.

Springborn Institute for Bioresearch, Inc.

SCIENCE

SCIENCE Introduces "The Four-Day Close"

We now offer our recruitment advertisers the convenience formerly found only in daily newspapers. We call it "The Four-Day Close." Instead of reserving space a month or more in advance, you now have until just four days before the issue is mailed to its 160,000-plus subscribers.

Film (right-reading, emulsion face down, ¼ or ½ page size only) and insertion order must reach: SCIENCE, Room 107, 1515 Massachusetts Avenue, N.W., Washington, D.C. 20005, by 3 p.m. Mondays (except for legal holidays when material must reach Washington by 3 p.m. Fridays). Because space is limited, the four-day close page will be reserved on a first-come, first-served basis.*

Now you don’t have to wait for the professional you need as soon as possible. Nor must you advertise in a Sunday paper that pans a lot of sand, but not much gold. Scientific employers know that SCIENCE ads fill the job better. Now they fill it faster, too.

We call it "The Four-Day Close."
You can call it "Instant Recruitment."

For further information, telephone Dick Charles at SCIENCE: 212-730-1050, or write: 1515 Broadway, New York, N.Y. 10036.

*At a 15% premium.
ADVANCED STUDY INSTITUTE

Applications are solicited from members of NATO countries for a NATO ADVANCED STUDY INSTITUTE on "Brain Mechanisms and Spatial Vision" (16 to 25 September 1983). Applicants will submit: personal résumé, a one-page summary of current research, and (for students) a letter of recommendation from a professor to: Professor D. Ingle, Psychol.

TRAINING PROGRAM

PREDOCTORAL TRAINING PROGRAM

ANATOMY AND CELLULAR BIOLOGY

The Department of Anatomy and Cellular Biology, Tufts University School of Medicine, Veterinary Medicine, and the Sackler Graduate School of Biomedical Sciences, invites applications for its Ph.D. training program. Major research areas in the department include pulmonary cell biology and metabolism, reproductive biology and neuroendocrinology, neurobiology, comparative immunology and the effects of stress on immunosuppression, effects of stress and aging on the musculoskeletal system, and cell biology including secretory mechanisms, cell motility, cellular interaction, and control of gene expression, and control of cell multiplication. All students admitted to the program receive tuition waivers; stipends may also be available for qualified trainees. Applications should be completed by 1 March for entrance to the program in September 1983. For application materials, write to:

Karl Hinchcliff, Ph.D.
Professor and Chairman
Department of Anatomy and Cellular Biology
Tufts University School of Medicine
136 Harrison Avenue
Boston, Massachusetts 02111

FELLOWSHIPS

MARINE POLICY AND OCEAN MANAGEMENT

RESEARCH FELLOWSHIPS

Woods Hole Oceanographic Institution offers 1-year fellowships to professionals in social sciences, law, or natural sciences who will apply their training to problems that involve the use of the oceans, including coastal zone management, fisheries management, marine policy problems and opportunities in developing countries, implications of the Law of the Sea for ocean policy, and the impact of ocean management, use of scientific information in decision-making and policy planning, and U.S./Canada scientific interactions. Applicants are encouraged to pursue research topics that may be appropriate. Recipients of awards are selected on a competitive basis with primary emphasis placed on the quality of the applications. Applicants must have completed a doctoral level degree or possess equivalent professional qualifications through career experience.

Fellowship stipend is $21,500.

Applications should be completed by 1 March 1983. Recipients are encouraged to pursue their own research interests independently or in association with resident staff. Completed applications must be received by 1 March 1983 for 1983–1984 awards. (A second year’s appointment may be possible.) Awards announced in April. Write for application form to:

Dean of Graduate Studies, Education Office, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts 02543

Equal Opportunity/Affirmative Action Institution

FELLOWSHIPS

POSTDOCTORAL FELLOWS—The Cancer Research Center of the University of North Carolina (UNC) at Chapel Hill will have openings 1 July 1983 for postdoctoral trainees in collaborative research projects with investigators in basic cancer-related research in tumor virology, chemical carcinogenesis, drug development and cancer cell biology, and tumor immunology. Training available in projects dealing with characterization of receptors; protein phosphorylation; nuclear hybridization; cloning of cell and molecular genetics of systems including herpesviruses and retroviruses; mechanisms of DNA replication, mutagenesis and repair; molecular biology of cellular and viral antigens and antiviral and antitumor drugs; immunogenetics; macrophage activation; flow cytometry; cell surface regulation; epithelial cell systems and combined programs. Unique resources and departmental affiliations. Applications must be received by 1 May 1983. Send curriculum vitae, three letters of recommendation, a statement of research interests, a summary of publications and goals by 15 February 1983 to: Director, Cancer Research Center, Box 50, M.N.G. Building, Chapel Hill, N.C. 27514. UNC’s Cancer Research Center is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP

Position is available immediately to study the biology of bovine coronavirus. The emphasis is on studies of antigen-antibody interactions, the identification of the three unique groups of viral antigens, the effectiveness of subunit vaccines, and the role of bovine virus diarrhea virus. A background in basic virology and immunology is essential. Contact: Dr. W. C. Allen, Chairman, Department of Microbiology, University of Nebraska, Lincoln, Nebraska 68588.

POSTDOCTORAL FELLOWSHIP—Dr. C. A. Johnson, Department of Physiology and Pharmacology, University of California, in San Francisco, offers fellowships to candidates holding Ph.D. degrees to study the effect of platelet factor 4 on the mechanism of platelet aggregation. Applicants should apply by 1 March 1983. Address inquiries to: Dr. C. A. Johnson, Department of Physiology and Pharmacology, University of California, San Francisco, California 94143.

Harvard University offers a limited number of postdoctoral fellowships in the field of cancer biology. Fellowship stipend is $21,500. Application materials are due to: Professor D. Ingle, Psychol. Academy of Sciences, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036. Affirmative Action/Equal Opportunity Employer.

VETERINARY VIROLOGIST

The Department of Microbiology and Environmental Health, College of Veterinary Medicine, Michigan State University, seeks candidates for a position in the area of avian virology. Responsibilities include teaching in professional veterinary programs and conducting research. Candidates should have a Ph.D. in virology or a closely related field and demonstrated potential for independent productivity. This is a 12-month, full-time position, with an expected starting date of 1 September 1983. Applications should include a detailed curriculum vitae, letter describing research experience, a teaching statement, and three letters of reference. Applications should be sent to: Dr. G. R. L. Brown, Chairman, Department of Microbiology, Michigan State University, East Lansing, Michigan 48824. Applications will be considered until the position is filled.

Recent graduates with a Ph.D. in virology or a closely related field and demonstrated potential for independent productivity are encouraged to apply. This is a 12-month, full-time position, with an expected starting date of 1 September 1983. Applications should include a detailed curriculum vitae, letter describing research experience, a teaching statement, and three letters of reference. Applications should be sent to: Dr. G. R. L. Brown, Chairman, Department of Microbiology, Michigan State University, East Lansing, Michigan 48824. Applications will be considered until the position is filled.
Encouraged diagnostic in hybridomas.

Individuals Immunology, antibodies related Position company using monoclonal MICROBIOLOGIST IMMUNOASSAY SCIENTIST

Join an exciting, growing company using monoclonal antibodies to develop immuno-diagnostic tests.

Position requires Ph.D. in Immunology, Microbiology or related field with experience in enzyme immunoassay development, microbiology, virology, protein biochemistry, and hybridomas.

Individuals with a demonstrated track record of achievement in the commercial, clinical immunodiagnostic field are encouraged to apply by mailing a resume, which must include salary history, to

BTC DIAGNOSTICS

61 Moulton Street
Cambridge, MA 02138
An Equal Opportunity Employer

PUBLIC HEALTH TOXICOLOGIST

$25,428–$33,193

The Pennsylvania Department of Health is currently accepting applications for a Public Health Toxicoalogist to serve as the senior state toxicoalogist in its Division of Environmental Health.

MINIMUM EXPERIENCE AND TRAINING:

Four years of responsible experience in the field of toxicology or pharmacology, which included one year of consultant or administrative experience in a toxicological program; and a Master's Degree in chemistry, biology, environmental health, or related science. A Doctorate Degree in pharmacology or toxicology may be substituted for two years of technical experience; or any equivalent combination of experience and training.

This is a Civil Service position. A job announcement and application may be obtained by contacting Miss Evelyn L. Hunt, Chief, Recruitment and Placement at the Pennsylvania Department of Health, Bureau of Personnel, P.O. Box 90, Harrisburg, Pennsylvania 17108; telephone (717) 787-2160. Applications will be accepted until January 14, 1983.

The Pennsylvania Department of Health is an Equal Opportunity Employer.

ADVERTISEMENT

DIRECTOR, SCHOOL OF NUCLEAR ENGINEERING AND HEALTH PHYSICS.

Applications are invited for the position of director of the School of Nuclear Engineering and Health Physics, Georgia Institute of Technology. The School, with a faculty of sixteen, offers undergraduate and graduate degrees and currently has enrolled 148 undergraduate and 78 graduate students. The curriculum encompasses a wide range of topics in fission reactor technology, operations, and economics, fusion, health physics, radiation applications, and environmental studies. Faculty research is conducted in all of these areas.

Applicants should have a distinguished research record in one or more of the areas relevant to the School, demonstrated leadership and administrative experience appropriate to chairing a strong department, and an earned doctorate in a related field of engineering or science. Applications including a complete curriculum vita and the names of three references who may be contacted should be sent no later than March 1, 1983 to Dr. W. M. Stacey, Jr., Chairman of the Search Committee, School of Nuclear Engineering and Health Physics, Georgia Institute of Technology, Atlanta, Georgia 30332.

Georgia Tech is an equal education and employment opportunity institution.

Scanning Electron Microscopy in the Biological Sciences

April 11-16, 1983

Attendance limited to 12

Principal Faculty:
Bruce Wetzel, NIH
Ralph Albrecht, U. of Wisconsin
A.J. Tousimis, Tousimis Research Corp.

Autoradiography in Electron Microscopy

April 17-22, 1983

Attendance limited to 18

Principal Faculty:
Mike Williams, U. of Sheffield, UK
John Baker, Ciba-Geigy, UK
Jean Wrathall, Georgetown U.

Intensive residential laboratory courses to be held at the University of Cincinnati College of Medicine in cooperation with its Department of Anatomy and Cell Biology, under the auspices of Woods Hole Educational Associates, Morton D. Maser, Director.

For more information and applications, contact:
Woods Hole Educational Associates
P.O. Box EM, Woods Hole, MA 02543 (617) 540-5594
CENTOCOR™

INTRODUCES CARBOHYDRATE ANTIGEN 19-9™ RADIOIMMUNOASSAY

A VALUABLE RESEARCH TOOL USING MONOCLONAL ANTIBODIES FOR DETECTION AND MANAGEMENT OF GASTROINTESTINAL CANCERS

CA 19-9™ RIA is an in vitro radioimmunoassay for the measurement of CA 19-9™ in serum or plasma.

THIS NEW TUMOR MARKER HAS DEMONSTRATED...

...LOW FALSE POSITIVE RATES
- Normal Population < 0.5%
- Heavy Smokers < 1.8%
- Pancreatitis, rectal polyps and inflammatory bowel disease < 3%

...HIGH ASSOCIATION WITH GI CANCERS
- High sensitivity and specificity for pancreatic cancer.
- Improved performance for detection of pancreatic, liver and stomach cancers.

...USEFULNESS AS A PROGNOSTIC MONITOR FOR COLORECTAL CANCER
- Clinical studies indicate CA 19-9™ levels may be elevated in some patients 6 to 18 months prior to Carcinoembryonic Antigen for the prediction of colorectal cancer recurrence.
- CA 19-9™ provides additional as well as confirmatory information for prognostic management of colorectal cancer patients when paired with Carcinoembryonic Antigen.

...POTENTIAL TO BROADEN THE SCOPE OF CANCER RESEARCH
- This new tumor marker which is sensitive for gastrointestinal malignancies and with low false positive rates affords a new tool for studies in such areas as chemotherapy protocols or testing of cancer diagnostics.

CA 19-9™ RIA IS AVAILABLE FOR RESEARCH USE.

SPECIAL EVALUATION OFFER
To take advantage of this special offer, simply purchase one CA 19-9™ RIA kit for $385.00 (FOB Malvern, PA, U.S. Dollars) and CENTOCOR™ will ship another kit at no charge!*

HOW TO ORDER:
By phone: (800) 345-2401 Continental USA.
(800) 342-2842 PA only.
(215) 296-4488 All others.

By telex: 834823 MARN

By mail: CENTOCOR, Inc., 244 Great Valley Parkway, Malvern, PA 19355 USA.

*Offer valid until December 31, 1982 North America Only.
in the human brain. v218 p891–894 26 Nov 82.

Barth, Richard. See Crews, Stephen.

Bartlett, A. C. See LaChance, L. E.

Baskin, David S. See Hosobuchi, Yoshio.


Beatty, Jackson. See Barth, Daniel B.; Beck, Sherman H.; Henry G.; Jr.; Beecher, Robert M.; See Corrucchini, Robert S.


Belas, Robert; Cohn, Daniel; Hilmen, Marcia; Simon, Melvin; Silverman, Michael: Bacterial bioluminescence: isolation and expression of the luxiferon genes from Vibrio harveyi. v218 p791–793 19 Nov 82.

Bell, William J. See Schal, Cory.

Benett, Alan B. See Williams, Stephen E.

Bentley, David and Kashishian, Hagi: Pathfinding by peripheral pioneer neurons in grasshoppers. v218 p1082–1088 10 Dec 82.

Berezin, I. V. See Martinek, Karel.


Bertles, John F. See Boussios, Thalia.


Bibaum, Veronica M. See DePuy, Charles H.

Blisborough, Richard E. See Popkin, Barry M.

Birch, Martin C. See Willis, Mark A.


Black, A. C. Jr.; See West, James R.


Blalock, J. E.: See Smith, Eric M.

Blanco, Antonio. See Montamat, Enrique.

Blayney, Douglas. See Kalyanaraman, V. S.

Blom, R. See McCauley, J. F.

Blough, Donald S.: Pigeon perception of letters of the alphabet. v218 p397–398 22 Oct 82.

Blount, Paul. See Oldstone, Michael B. A.

Boake, Christopher B. and Caprana, Robert R.: Aggressive signal in “courtship” chrips of a gregarious cricket. v218 p580–582 5 Nov 82.

Böhlen, Peter. See Guillemin, Roger. See also Luben, Richard A.


Borg, William E. See Elachi, C.

Borrell, Alan. See Feldman, David.


Calame, Kathryn. See Crews, Stephen.

Capen, Ronald L. See Wagner, Witz W., Jr.
INDEX TO VOLUME 218


Levin, Alvin E. See Jensen, Hanne M.
Lui, Kao T. See Hairston, Nelson G., Jr.
Lund, Ernest, James R.
Ling, Nicholas. See Guillemín, Roger.
Linker, M. F. See Langbein, J. O.
Little, William J.; NIH 3T3 cell line (letter). v218 p214, 215 16 Oct 82.
Liu, Chih-Ping. See Conrad, Susan E.
London, William T. See Murphy, Brian R.
Loose, David S. See Feldman, David A.
Luben, Richard A.; Brazeau, Paul; Höhlein, Peter; Grant, John: Monomeric antibodies to hypoallergenic growth hormone–releasing factor with picomolar of antigen. v218 p887–889 26 Nov 82.
Luscher, Sheldon: Radiation angle and heat transferred to a bird (technical comment). v218 p920 26 Nov 82.
Lyttle, Terrence W. See Carson, Hampton L.

M

MacDonald, H. See Elachi, C.
Mach, Junji. See Segil, Bernard.
Madin, Laurence P. See Caron, David A.
Mandler, George. See Graf, Peter.
Manier, D., See Janowsky, Aaron.
Manner, F. J.; Müller, D. G.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.

Schloesing, Robert.
T-V

Tafse, J. and Spence, J. C. H.: Crystal site location and occupancy in a magnetically iron-oxide by a new crystallographic technique. v218 p49-51 1 Oct 82.

Tamaddon, S. See Angeli, C. A.


Taranik, James V. See Settle, Mark.

Tassotti, Chaim: See Allen, Robert Day.

Tauber, Catherine A. See Tauber, Maurice J.


Taylor, Charles P. and Dudek, F. Edward: Synchronous neural afterdischarges in rat hippocampal slices without active chemical synapses. v218 p810-812 19 Nov 82.


Tenore, Ken: See Findlay, Stuart.

Thommer, Jeremy: See Lounay, Erнести.

Thompson, R. E.: Identifying genetic differences in the reproduction of coral-reef fishes. v218 p70-72 1 Oct 82.


Tiegs, James M.: See Sultila, Joseph M.

Tiemeyer, Eveline L. See Murphy, Brian R.

Tischier, Mark: See Davis, Michael.

Tinsh, Antoonote: See Oldstone, Michael B. A.

Tomeiko, H. See Csernas, László.

Tomeu, J.M.: See Sultila, Joseph M.


Tootsel, Roger B. H.: Silverman, Mark: See Sultila, Joseph M.

Tooth, A.G.: See Sultila, Joseph M.

Tomlin, C.: See Puri, D. K.


Trzeciak, A. See Paton, Jacob.

Tsuchiya, K.: See Aoki, R.

Tsuchiya, K. See Aoki, R.

Tsuchiya, K.: See Aoki, R.

Tsuchiya, K.: See Aoki, R.

Tsuchiya, K.: See Aoki, R.

Tsuchiya, K.: See Aoki, R.

Tsuchiya, K.: See Aoki, R.