essays Haldane and Modern Biology published under his editorship in 1968. (That collection, along with a biography of Haldane by Ronald W. Clark, was reviewed in Science 164, 679 [1969].) The present work, which includes some quite detailed information about Haldane's habits and activities, is arranged around the general themes of his personal and scientific background, his contributions to science, his writings of a more general character, his travels, visitors, and associates, his resignation from the Indian Statistical Institute and activities thereafter, and his "philosophies." An appendix presents some excerpts from Haldane's popular writings, and a bibliography of his scientific writings and name and subject indexes are also included.-K.L.

Economic and Medicinal Plant Research. Vol. I. H. WAGNER, HIROSHI HIKINO, and NORMAN R. FARNSWORTH, Eds. Academic Press, Orlando, FL, 1985. xxi, 295 pp., illus. \$69.50; paper, \$39.95

In this volume a group of authors representing the Program for Collaborative Research in the Pharmaceutical Sciences at the University of Illinois at Chicago, the Institut für Pharmazeutische Biologie at the University of Munich, and several Japanese institutions present a collection of papers intended to identify and review "areas of research in natural plant products that are of immediate or projected importance from a practical point of view." The six contributions, which draw on both Western and non-Western literature, deal with stevioside (derived from the leaves of Stevia rebaudiana, a New World species belonging to the Compositae) as a sweetening agent, nine Oriental medicinal plants, gossypol as a male contraceptive, immunostimulants derived from fungi and higher plants, and Siberian and Korean ginseng. The volume has a ten-page subject index.-K.L.

The Evolutionary Process. A Critical Review of Evolutionary Theory. VERNE GRANT. Columbia University Press, New York, 1985. xxi, 499 pp., illus. \$40.

In this book the author of Origin of Adaptations (1963) and Organismic Evolution (1977; see Science 197, 1272) presents what he describes as his third generalized treatment of organic evolution. The volume consists of eight main sections, dealing (after an introduction) with the general topics of microevolution, natural selection, acquired characters, speciation, macroevolution (basic processes and special aspects), and human evolution. "The focus throughout," Grant notes, "is on evolution in whole organisms ..., rather than on molecular changes or mathematical models." General principles are emphasized, and the author expects the book will be readable to "a spectrum of readers ranging from advanced biology students to professional workers in evolutionary biology and bordering fields."-K.L.

Books Received

Asymmetric Synthesis. Vol. 5, Chiral Catalysis. James D. Morrison, Ed. Academic Press, Orlando, FL, 1985. xiv, 391 pp., illus, \$8

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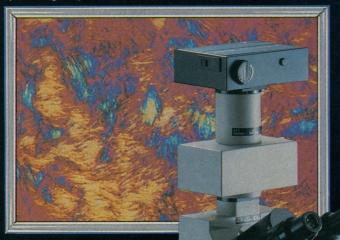
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Universal Bases for Optical Components

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Literature

Thermometry presents state of the art temperature measuring, monitoring, and indicating devices for all scientific applications. Illustrations and timely suggestions for easier usage are included. Brooklyn Thermometer. Circle 560.

Biological Oxygen Monitor describes the YSI5300 instrument to measure oxygen uptake or evolution in samples with low substrate volumes. Yellow Springs Instrument. Circle 564.

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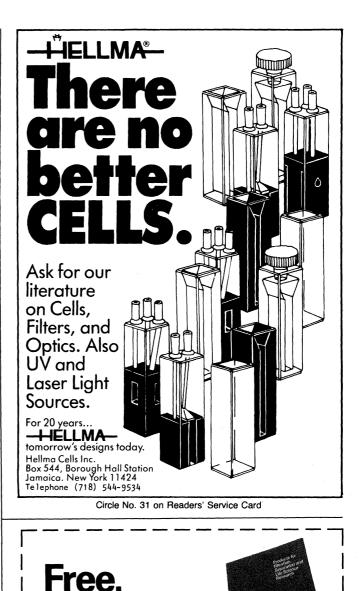
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Cell/Molecular Biologist. Ph.D. Four years of postdoctoral research experience includes recombinant DNA work. Highly knowledgeable and motivated with broad interests at basic and applied levels. Seeks challenging nonresearch position in industry. Box 277, SCIENCE. X

Freelance Science Editor, M.S. Experience with books and journal articles in biology, medicine, and computer science. Will work for publishers and authors (including non-native writers of English) in most technical fields. Box 9, SCIENCE. X

Medical Assay Scientist/Manager. Accomplished in electronic detection of biomolecules, drugs, and viruses. Strong professional standing; leadership, communication skills. Patents; publications. Seeking research directorship or entrepreneurship. Box 282, SCIENCE. X

Pathologist/Biostatistician. Seeking medical research position in industry or academia. Interest is in applying mathematics to medical science, combining theoretical and experimental aspects. Experience in epidemiology, nutrition, computers, and management. Box 281, SCI-ENCE. 1/17, 24

Physician-Scientist. M.D., Ph.D. (biochemistry); M.S. (microbiology), 38. Extensive teaching and research experience with broad interests. Research in protein isolation, purification and characterization, and enzymology. Tumor antigen isolation, immunology, bacterial sporulation and regulation. Faculty position at major New York university, taught graduate and undergraduate courses. Research appointment at renowned cancer center. Interested in suitable opportunities in industry or hospitals. Also available for consulting. Box 4, SCIEN-CE. X

Product Development Manager, Ph.D. Thirteen years of experience in development and manufacture of microbiological reagents and diagnostics. Familiar with FDA and GMP guidelines. Hands-on experience with bulk cultivation, separation, sterilization, freeze drying, and high-volume packaging technologies. Good analytical and planning skills have successfully interacted with regulatory, QA/AC operations, and manufacturing at all stages of product development. Seeks senior pilot-plant or manufacturing management position in diagnostics/ pharmaceutical industry. Box 5, SCIENCE. 1/17, 24

POSITIONS OPEN

ANATOMISTS/CELL-MOLECULAR BIOLOGISTS

Veterinary Anatomy and Fine Structure, has three tenure-track, faculty positions open. Salaries, ranks, and starting dates are negotiable. Gross-clinical anatomy position requires Ph.D. in anatomy; D.V.M. desired. Other positions require Ph.D. only in anatomy or related discipline. Positions require teaching veterinary anatomy and graduate courses. Research in cellular and molecular biology of veterinary species, marine biology, or aquatic biology of veterinary species, marine biology, or aquatic biology is of interest. Applicants/nominees should send curriculum vitae and names of three references to: Dr. W. J. Banks, School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA 70803. Final filing date is 15 February 1986, or until suitable persons are identified. Louisiana State University is an Affirmative Action/Equal Opportunity Employer.

ANATOMY AND PHYSIOLOGY. Tenure-track assistant professor appointment to begin 25 August 1986 (contingent upon funds) for Ph.D. to teach: primarily anatomy and physiology to pre-nursing students, also freshmen biology and advanced course. Develop research program with preference given to developmental or molecular biology. Send letter stating teaching and research interest and experiences, curriculum vitae, reprints, and letters from three references before 21 February 1986 to: Dr. Paul M. Nollen, Department of Biological Sciences, Western Illinois University (WIU), Macomb, IL 61455. WIU is an Affirmative Action Equal Opportunity Employer. Applications from minorities, women, and handicapped persons are especially encouraged.

POSITIONS OPEN

ANIMAL VIROLOGIST. The Veterinary Research Laboratory/Department of Veterinary Science at Montana State University (MSU) invites applications for a tenure-track position at the level of assistant professor. Applicants must have a Ph.D. or D.V.M./Ph.D. and a record indicative of research productivity. The successful candidate is expected to conduct independent research on virus diseases of livestock of importance to Montana and the region. Research disciplines in the laboratory include bacteriology, immunology, parasitology, pathology, and virology. Opportunities exist for participation in the departmental graduate programs, limited graduate and undergraduate teaching, and collaborative research. Send curriculum vitae, names of three references, and a brief statement of research interests no later than 1 April 1986 to: Frank Newman, Veterinary Research Laboratory, Montana State University, Bozeman, MT 59717. MSU is an Equal Opportunity/Affirmative Action Employer.

ANTIVIRAL DRUG EVALUATION

Postdoctoral Fellow/Research Associate position is available to work on the evaluation of new nucleoside analogues with respect to their antiviral activity against human herpesvirus, as well as to their potential use as radiolabeled probes to selectively image herpesvirus infections in vivo. The latter studies are currently using quantitative autoradiographic methods for preclinical development of probes for noninvasive diagnosis and pathophysiologic studies of human herpes encephalitis. Please send curriculum vitae and bibliography along with the names of three references to: Richard W. Price, M.D., Department of Neurology, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Equal Opportunity Employer, M/F/H.

ASSISTANT OR ASSOCIATE PROFESSOR

Excellent academic opportunity for M.D./Ph.D. researcher in new, basic brain science program bearing on psychiatric disorders (molecular level research preferable). Must have demonstrated skills in basic research and be credentialed in psychiatry (minimum: Board-eligible). Funding available: personal salary, laboratory equipment, and start-up salaries. Some teaching and minimal clinical duties. Curriculum vitae and sample papers to: K. Z. Altshuler, M.D., University of Texas Health Science Center, Department of Psychiatry, 5323 Harry Hines, Dallas, TX 75235-9070. An Equal Opportunity Employer University.

ASSISTANT PROFESSOR—Applications are invited for the position of assistant professor in the Division of Cancer Genetics, Dana-Farber Cancer Institute with a dual appointment in an appropriate department at Harvard Mcdical School. Applicants should have a superior postdoctoral record of achievement in cell and/or molecular genetics, with high promise of an outstanding research career, as well as a personal commitment to fundamental studies with relevance to cancer. The applicant is expected to develop a strong and creative research program, and to participate in graduate and medical teaching at Dana-Farber and Harvard Medical School. Respond to: Dr. Ruth Sager, Division of Cancer Genetics, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. The Dana-Farber Cancer Institute and Harvard University are Equal Opportunity/ Affirmative Action Employers. Qualified women and minority group members are encouraged to apply.

ASSISTANT PROFESSOR-DEPARTMENT OF GEOLOGY-Applications are invited for a tenure-track assistant professorship to begin in September 1986. One person is to be hired for either of two possible positions: (i) GEOPHYSICIST with research interests in scismic studies, gravity, or magnetics; or (ii) HYDROGEOLO-GIST with research interests in ground water geology. The candidate should have a strong geological background, in addition to the ability and desire to teach undergraduate- and graduate-level geology courses. A strong geological application of the research is required. The Ph.D. degree is required. The University of Delaware is a medium-sized, state-supported institution with strong emphasis on and support of research. There are currently nine members on the geology faculty. Please send a résumé and the names, addresses, and telephone numbers of three referees by 31 March 1986 to: Dr. Robert E. Sheridan, Chair, Search Committee, Department of Geology, University of Delaware, New ark, DE 19716. The University of Delaware, New *Apportunity/Affirmative Action Employer*.

Applications are invited for the tenure-track position of an ASSISTANT PROFESSOR with a BOTANICAL EMPHASIS (botany, plant physiology) supplemented by either a MOLECULAR or ECOLOGICAL ORI-ENTATION. Teaching of undergraduate courses (botany, plant physiology) and graduate (M.S.) courses in area of specialization. Participation in the introductory biology course. Strong commitment to teaching essential. Send application, résumé, and three letters of reference to: Dr. Werner Kundig, Chairperson, Department of Biology, Hood College, Frederick, MD 21701. Deadline for applications: 15 March 1986. Equal Opportunity Employer.

> ASSISTANT PROFESSOR/ ASSOCIATE PROFESSOR EUKARYOTIC GENETICS/ MOLECULAR GENETICS/ IMMUNOGENETICS

Three tenure-track positions are available in the biology department in a newly developed cellular/molecular biology research and teaching program. Applicants should have postdoctoral experience and a strong potential for or an established research program. Major instrumentation is available. Teaching requirements involve M.S./ Ph.D.-level training only. Send curriculum vitae, statement of research interest, and the names of three references by 15 February 1986 to: Dr. Franklin D. Hamilton, Research Centers Program, Atlanta University, 223 James P. Brawley Drive, SW, Atlanta, Georgia 30314. Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR of structural biochemistry. Atlanta University seeks applicants for a tenure-track appointment at the assistant/associate professor level in the Department of Chemistry for fall 1986. Applicants are sought who will develop a vigorous research program in the application of forefront NMR techniques to structural biochemistry problems. Preference will be given to applicants with a physics or biophysics background. The university NMR Center houses MSL-200 and WM-250 instruments interfaced to the Aspect 3000. The university is solely a graduate institution offering the M.S., Ph.D., and D.A. degrees in chemistry. Applicants should submit curriculum vitae, a letter discussing current and future research plans, and three letters of reference to: Dr. Frank Cummings, Department of Chemistry, Atlanta University is an Equal Opportunity/Affirmative Action Employer.

McGILL UNIVERSITY DEPARTMENT OF PLANT SCIENCE

Applications are invited for a full-time, tenure-track position at the ASSISTANT PROFESSOR level, in *Bioherbicides*. The successful candidate is expected to develop an active research program in biotechnology as it relates to weed control. Teaching responsibilities will include courses at the undergraduate and graduate levels. Ph.D. required with graduate training in fungal genetics, industrial mycology, or fermentation technology. Experience in plant pathology and crop production desirable. Starting salary \$30,169 per year. Send application, curriculum vitae, and arrange for three letters of reference to be sent to: Dr. R. D. Reeleder, Chairman, Search Committee, Department of Plant Science, Macdonald College of McGill University, 21,111 Lakeshore Road, Ste-Anne-de-Bellevue, Quebec, Canada, H9X 1CO. Closing date 31 March 1986, or until a suitatcandidate is found. Starting date will be 1 June 1986. All qualified, interested candidates are encouraged to apply, but in accordance with Canadian immigration regulations this advertisement is directed, in the first instance, to Canadian citizens and permanent residents of Canada.

ELECTRON MICROSCOPE TECHNICIAN

The Biology Department at Atlanta University seeks an experienced electron microscope technician trained in both TEM and SEM. The successful candidate will be responsible for the use and maintenance of an RCA and a Hitachi electron microscope. The candidate should have experience in both photomicrography and slide prepartions. The salary is commensurate with experience. Send curriculum vitae, statement of research interest, and the names of three references by 15 February 1986 to: Dr. Franklin D. Hamilton, Research Centers Program, Atlanta University, 223 James P. Brawley Drive, SW, Atlanta, Georgia 30314. Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

GEOSCIENCE DEPARTMENT

Indiana University of Pennsylvania invites applications for a tenure-track position in the Geoscience Department at the rank of **ASSISTANT PROFESSOR** to teach geochemistry and/or hydrogeology at the undergraduate level beginning the fall semester 1986. Individuals with a specialty other than geochemistry or hydrogeology must also plan on offering an upper level course in his/her specialty. Research in field of specialty is strongly encouraged. Ph.D. or nearing completion (ABD) is required. University teaching experience is desired; work experience in industry or state/federal geological surveys acceptable. Send letter of application, résumé, transcripts, and three letters of recommendation by 31 March 1986 to:

> Professor Paul Prince Chairman, Search Committee Geoscience Department Indiana University of Pennsylvania Indiana, PA 15705

IUP is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT OR ASSOCIATE PROFESSOR. Biochemistry/organic chemistry. Tenure-track position to begin August 1986. The DePauw University Department of Chemistry is ACS-accredited. Ph.D. required; some experience preferred. Primary emphasis in this position is on undergraduate teaching, but the individual will be expected to maintain an active personal research program and direct undergraduate research projects. Teaching responsibilities will be in biochemistry, organic chemistry, and general chemistry. Rank, salary, and benefits are dependent upon qualifications and experience and are competitive. Send current, complete curriculum vitae, undergraduate and graduate transcripts, and three letters of reference to: Professor John McHarland, Chairman, Department of Chemistry, DePauw University, Greencastle, Indiana 46135, no later than 1 March 1986. DePauw University is an Affirmative Action/ Equal Opportunity Employer and encourages applications from all qualified and interested persons.

ASSISTANT PROFESSOR OF BIOLOGY—Position available May 1986. Undergraduate teaching responsibilities include: zoology, anatomy, physiology, genetics, and cell biology. Ph.D. with commitment to, and experience in, teaching required. Send curriculum vitae, three letters of recommendation, and transcripts to:

> Sister John Karen Frei, O.P. Ph.D. Associate Vice President Academic Health Science Center Barry University 11300 Northeast Second Avenue Miami Shores, Florida 33161 Equal Opportunity Employer

ASSISTANT PROFESSORS OF MICROBIOLOGY AND IMMUNOLOGY UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE AT CHICAGO

The Department of Microbiology and Immunology, as part of a process of growth and increase in activity, is seeking to fill three positions at the level of assistant professor (tenure-track; associate professor candidates will also be considered). Each will be expected to develop a strong independent research program with external funding. Adequate space and start-up funds are available. Participation in teaching and graduate student training is expected.

Applicants should provide the appropriate search committee with curriculum vitae, at least three letters of recommendation, and a brief statement of future research interests and plans. The first series of candidates will be considered after 15 February 1986 and applications will be accepted until the positions are filled. Starting dates can be September 1986 or thereafter.

can be September 1986 or thereafter. Send applications to: Drs. Katherine Knight and Margalit Mokyr, Co-Chairs, Immunology Search Committee; or Drs. A. M. Chakrabarty and Simon Silver, Co-Chairs, Prokaryote Molecular Biology Search Committee; or Drs. Kiranur Subramanian and Peter Moore, Co-Chairs, Virology/Cell Biology Search Committee, Department of Microbiology and Immunology, University of Illinois College of Medicine, P.O. Box 6098, Chicago, Illinois 60680. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR UNIVERSITY OF PENNSYLVANIA

A tenure-track position to begin at the assistant professor level is available in the Department of Human Genetics for an M.D. or M.D./Ph.D. with a strong background in molecular biology, and a record of research productivity as an independent investigator. The candidate should be Board-certified and eligible for a joint appointment in a clinical department such as medicine. Areas of interest may include: developmental biology, neurobiology, and molecular mechanism of disease. Please send résumé to: Dr. Roy Schmickel, Department of Human Genetics, Room 195 Medical Laboratories Building, University of Pennsylvania, Philadelphia, PA 19104–6072. An Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR, DEVELOPMENTAL BIOLOGY. The Department of Biology of the University of Colorado (CU) at Denver invites applications for a tenure-track position, to begin fall 1986. CU-Denver is a comprehensive, urban university emphasizing excellence in research and in teaching at the undergraduate and graduate levels. Applicants therefore should have strong commitments to both teaching and research, and present evidence of potential in both areas. Prior teaching experience and postdoctoral research experience are desirable. Candidates should have expertise in molecular approaches to animal development. Teaching responsibilities may include courses in general cell biology, developmental biology, portions of general biology, and a course in area of expertise; ability to teach or participate in a molecular biology course is desirable but not required. Applicants should submit a letter describing teaching experience and research plans, curriculum vitae, reprints, and three letters of reference by 1 March to: Search Committee, Biology Department, Box 171, University of Colorado at Denver, 1100 14th Street, Denver, CO 80202. *CU-Denver is an Equal Opportunity/Affirmative Action* Employer.

HARVARD UNIVERSITY GRADUATE SCHOOL OF DESIGN

ASSISTANT PROFESSOR—FRESHWATER ECOLOGY. A position of half-time teaching and halftime developing materials on ecological issues of critical importance in the Third World is available. Ecological research in land-water interactions of streams or lakes desirable. Experience in hydrology and in the Third World also desirable. Three-year position beginning September 1986.

RESEARCH ASSOCIATE-LANDSCAPE ECOL-OGY. A position of half-time research and half-time ecological teaching is available. Experience desirable in empirical or mathematical studies relating species and their movements to the spatial patterns of ecosystems in a landscape. One-year position beginning September 1986. Publications relevant to landscape ecology required.

These positions are in the Department of Landscape Architecture, Graduate School of Design, Harvard University. Ph.D. required no later than June 1986. Send curriculum vitae, statement of research interests, most relevant publications, and names of three references by 28 February 1986 to: Richard T. T. Forman, Search Committee, Harvard University, Graduate School of Design, 48 Quincy Street, Cambridge, MA 02138.

CHAIRMAN. Atlanta University invites applicants for appointment as chairman of the Department of Chemistry for fall 1986. This appointment will be at the level of associate or full professor in any area of chemistry. Applicants must present a demonstrated record of substantial accomplishments in research and academic and program leadership. The university is solely a graduate institution offering the M.S., Ph.D., and D.A. degrees in chemistry. The M.S. is offered in biochemistry, and physical chemistry; the Ph.D. is offered in organic, polymer, and biochemistry. The department is comprised of 7 full-time faculty, an over-all staff of 21, and 30 M.S. and 8 Ph.D. students with plans of substantial growth. Applicants should send a curriculum vitae, a letter discussing their interest in a leadership position and presenting their research plans, and three letters of recommendation to: **Professor Frank Cummings, Department of Chemistry, Atlanta University, Atlanta, GA 30314**, by 15 February 1986. Atlanta University is an Equal Opportunity/Affirmative Action Employer.

SCIENCE, VOL. 231

UNIVERSITY OF MASSACHUSETTS GRADUATE PROGRAM IN MOLECULAR AND CELLULAR BIOLOGY

The University of Massachusetts at Amherst has opened a search for the DIRECTOR of the new interdepartmental graduate program in molecular and cellular biology, now in its third year of operation. The membership of the program includes 25 faculty from the Departments of Biochemistry, Botany, Chemistry, Microbiology, and Zoology and the College of Food and Natural Resources, as well as faculty associates from Amherst, Mount Holyoke, and Smith colleges. Applicants should have a strong commitment to graduate education, a distinguished record of research accomplishment, and a position of leadership in an area of molecular or cellular biology. The successful candidate will be expected to ensure the excellence of the graduate training program, to assist in the planning and development of common research facilities, to participate actively in the recruitment of new faculty members, and to foster collaboration with the emerging, campus-wide biotechnology program. Funding is available for support staff, graduate assistantships, equipment, and dother program activities. Adequate space and facilities will also be provided for the candidate's own research field and interests of the successful applicant. The position will be based upon the research field and interests of the successful applicant. The position will be available 1 September 1986. Salary commensurate with qualifications and experience. Applications or nominations including the candidate's curriculum vitae, a current list of publications, and the names of three referees, should be sent to: MCB Director Search, Molecular and Cellular Biology Pro gram, University of Massachusetts, Amherst, MA 01003; telephone: 413-545-0352 and will be accepted until 15 March 1986, or until the position is filled. An Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR POSITIONS IN VERTEBRATE ZOOLOGY

Memphis State University

Applications are invited for two anticipated tenure-track assistant professor positions in vertebrate zoology beginning September 1986. Ph. D. required and postdoctoral experience preferred. Candidates must have a demonstrated ability in teaching and a commitment to the development of a strong, externally funded research program. Teaching duties include undergraduate and graduate courses and the research program will involve direction of M.S. and Ph.D. students. Preference will be given to those who complement the existing research activities in the vertebrate zoology section of the Department.

Vertebrate Ecology—Preference is for a theoretical or experimental ecologist working at the community or population level who employs mathematical methods to analyze ecological questions. Upper division teaching duties include vertebrate zoology, and the development of specialty courses in the area of expertise.

Vertebrate Physiology—Preference is for an organismal level physiologist with an experimental approach. Research interests should be comparative or ecological in nature. Upper division teaching duties include vertebrate physiology, physiological ecology, and the development of specialty courses in the area of expertise.

Candidates should submit a letter of application including a statement of research interests, curriculum vitae, complete transcripts, and three letters of recommendation postmarked on or before 28 February 1986 to: Dr. Kenneth B. Davis, Chairman of Vertebrate Search Committee, Department of Biology, Memphis State University, Memphis, TN 38152.

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

MEMORIAL UNIVERSITY OF NEWFOUNDLAND FACULTY OF SCIENCE HEADSHIP DEPARTMENT OF BIOCHEMISTRY

The Faculty of Science invites applications for the headship of the Department of Biochemistry owing to the present head retiring from the post in 1986. The department currently provides majors and honors programs in biochemistry, nutrition and food science, and an honors pro gram in direttics. Food science is currently being considered for recognition as a separate department. There are vigorous research and graduate programs in areas which include biological oxidation, toxicology, metabolic biochemistry, molecular biology, macromolecules, and membranes. Several members of the department are cross-appointed to the Faculty of Medicine.

Candidates should possess a substantial record of research achievement, nationally and internationally, and be able to demonstrate the qualities of leadership and administrative ability necessary to the further development and coordination of a vigorous and active department. Provision is made for the appointment of a deputy head, if required.

Applications should be sent to: Dean P. J. Heald, Faculty of Science, Chemistry-Physics Building, C-2001, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1B 3X7, from whom further details can be obtained, and should include a full curriculum vitae and the names of six referees (at least two of whom can appraise the candidate's leadership and organizational abilities). Date of appointment is 1 January 1987 or earlier, as may be agreed. Closing date for applications is 31 March 1986. (Position is subject to budgetary approval).

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents in the first instance.

PHYSICAL BIOCHEMIST

UNIVERSITY OF MASSACHUSETTS/ AMHERST

A tenure-track position is available in the Department of Biochemistry at the University of Massachusetts. Candidate should have a strong background in physical and instrumental methods of analysis of macromolecules or macromolecular assemblies and a current research program focused on use of these techniques to study problems in biochemistry or molecular and cellular biology. The successful applicant will be expected to maintain an active research program, contribute to undergraduate teaching in biochemistry, and participate in the interdepartmental graduate program in molecular and cellular biology. In addition to collaboration with colleagues in the biological sciences, the position offers opportunities for research interactions in the Departments of Chemistry, Physics, Polymer Science, Chemical Engineering, Mathematics, and Computer Science. The University of Massachusetts has excellent facilities for computing, applied mathematics statistics, and image analysis. The position will be filled at the level of assistant or associate professor, depending on experience, effective 1 September 1986. Salary commensurate with qualifications and experience. Send résumé, brief statement about present and planned research, and three letters of recommendation to: Physical Biochemistry Search Committee, Department of Biochemistry, Vinversity of Massachusetts, Amherst, MA 01003. Closing date for applications is 28 February 1986. An Affirmative Action/Equal Opportunity Employer.

Life Sciences Technology

Ciba Corning Diagnostic Corp. is a world leader in the medical diagnostics and biomedical research fields. Our philosophy of continuing care includes innovation, growth, and search for the people who will keep us dominant in today's market and #1 in tomorrow's.

The following research positions are at our Research Laboratory in Cambridge, Mass.

Senior Staff Scientist/Physical Chemist

We seek a qualified Senior Research Scientist for a Physical Chemistry position. A Ph.D. is required, with expertise and experience in at least one of the following areas: electrochemistry; surface or membrane chemistry; and mathematical modeling. Postdoctoral training or a familiarity with immunology is also desirable. The successful candidate will participate in an immuno-diagnostic research program and initiate quality research in his/her field of discipline.

Postdoctoral Position

An opening is available immediately to study the physical and chemical properties of fluorescent biomolecules such as phycobiliproteins. It is part of a multidisciplinary research program to identify and define advanced or novel fluorophores which may be used in fluorescence based immunoassays. A Ph.D. in biochemistry or biophysics is required. Experience in either immunology or molecular biology is desirable.

Postdoctoral Position

An opening is available in our basic immunology group to study lymphokine production by human T-cell hybridomas. This position is part of our effort to elucidate immunological mechanisms, particularly those affecting human responses to allergens. A Ph.D. in immunology or related field is preferred, with experience in cellular immunology.

Please apply within 20 days of this issue's date to Human Resource Dept. #704, Ciba Corning Diagnostics Corp., 63 North Street, Medfield, MA 02052.

Ciba Corning is an equal opportunity employer, m/f/h/v

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Ciba Corning Diagnostics Corporation

ASSISTANT PROFESSOR IN BACTERIAL GE-NETICS: As part of the rapidly expanding research and graduate training programs in the basic sciences of Emory University School of Medicine, the Department Emory University School of Medicine, the Department of Microbiology and Immunology is seeking to fill a new tenure-track **FACULTY POSITION** in bacterial genet-ics at the assistant professor level by September 1986. Candidates should be prepared to develop a vigorous research program using the latest molecular approaches in bacterial systems. Please submit curriculum vitae along with a brief summary of research plans and have three letters of reference forwarded to: Dr. June R. Scott, Bacterial Genetics Search Committee D. Dr. Junt R. Jorden of Microbiology and Immunology, Emory University School of Medicine, Atlanta, GA 30322. Deadline for application is 28 February 1986, or until the position is filled.

Emory University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR, CELL BIOLOGIST. Tenure-track position at the assistant professor level, beginning September 1986, to teach undergraduate and graduate courses in molecular and cell biology, to develop a graduate program, and to establish a strong research op a graduate program, and to establish a strong research program with external funding in the candidate's area of specialization. Ph.D. and postdoctoral experience re-quired. Submit curriculum vitae, reprints, and three letters of recommendation by 15 February 1986 to: R. D. Goos, Assistant Professor, Cell Biologist (020194) Position, THE UNIVERSITY OF RHODE ISLAND, P.O. Box 357, Kingston, RI 02881-0357. An Affirmative Action/Equal Opportunity Emblower. M/F. Employer, M/F

ASSISTANT PROFESSOR OF PHARMACOLO-ASSISTANT PROFESSOR OF PHARMACOLO-GY. Applications are being solicited for a 12-month, tenure-track position at the assistant professor level in pharmacology. The successful applicant will have an earned doctorate in pharmacology and have the potential to develop an independent research program. A signifi-cant portion of time will be spent teaching pharmacology to second-year medical students. Experience in educa-tional activities is, therefore, desirable. Interested individuals are asked to submit curriculum vitae, and three letters of reference to: Dr. Alvin S. Levine, Assistant Dean and Director, Terre Haute Center for Medical Education, Indiana University School of Medicine, 135 Holmstedt Hall, Terre Haute, IN 47809. Indiana University and Anticenter and Anticenter and Anticenter and Anticenter University of the Anticenter and University is an Equal Opportunity Affirmative Action Employer

ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology at the Johns Hopkins University School of Medicine seeks outstanding candidates for a position of assistant professor. The candidate may be interested in any area of physiology, including cardiovascular, cell, developmental, endocrine, gastrointestinal, muscle, pulmonary, or renal. Excellence in re-search and teaching will be prime criteria. Applications should include curriculum vitae, list of

publications, and statement of research plans. Completed applications and letters of recommendation, solicited by applicant, should be received no later than 1 March 1986 by:

Dr. John W. Littlefield Director, Department of Physiology Johns Hopkins University School of Medicine 725 North Wolfe Street Baltimore, Maryland 21205

An Equal Opportunity/Affirmative Action Employer. Applications from all qualified candidates will be welcomed, and applications from minorities and women are encouraged.

IMMUNOLOGY POSITION OPENING

The Department of Microbiology and Immunology of Emory University School of Medicine seeks highly quali-fied applicants for a tenure-track position at the level of assistant/associate professor. Applicants using the tools of molecular biology to answer relevant immunological questions are especially encouraged to apply, although others may be considered. Please send curriculum vitae, a one-page statement of research interests, and three letters of reference to: Dr. Robert B. Fritz, Department of Microbiology and Immunology, Emory University School of Medicine, Atlanta, Georgia 30322. Dead-line for application is 28 February 1986, or until the position is filled. Emory University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR CORNELL UNIVERSITY DEPARTMENT OF PLANT PATHOLOGY

Applications are invited for a tenure-track faculty position available 1 September 1986. A Ph.D. is required and postdoctoral experience is desirable. The applicant's principal training and/or research experience should be in plant disease epidemiology or quantitative population dynamics of plant pathogens. The appointee will be expected to develop a strong program of research in plant disease epidemiology, using modern theory and technol-ogy of population biology, plant pathology, and mathe-matical modeling. Research should support the college DPM effort. The techning component includes graduate IPM effort. The teaching component includes graduate courses and graduate student advising. The major teach-ing responsibility is a graduate level course on the population aspects of plant pathology. The person in this position will constitute the major resource person for epidemiology and quantitative population dynamics in the department.

Applicants should submit a letter of application, com-plete transcripts of college courses, and a résumé of biographical data and professional experience, and should arrange to have four letters of recommendation sent to the Search Committee. Contact: H. D. Thurston, Chairman, Epidemiologist Search Committee, Department of Plant Pathology, Cornell University, Ithaca, NY 14853.

Deadlines for applications is 1 April 1986.

An Equal Opportunity/Affirmative Action Employer

ASSISTANT PROFESSOR OF BIOLOGY. Ph.D. required, regular appointment to begin August 1986. Applicants must be committed to teaching undergraduates at a small liberal arts college in genetics, cell biology, molecular biology, and biochemistry; and would be expected to contribute to the life sciences component of a general studies program. Send résumé, transcripts, state-ment of teaching interests, and three letters of reference by 17 February 1986 to: Dr. E. Willoughby, Chair-man, Biologist Search Committee, St. Mary's College of Maryland, St. Mary's City, MD 20686. Affirmative Action Équal Opportunity Employer.

ASSISTANT PROFESSOR OF BIOLOGY THREE POSITIONS

The Department of Biology seeks applications for one nontenure and two tenure-track positions to begin in September 1986 to fill vacancies resulting from faculty retirements. Ph.D. required. The successful candidate should demonstrate sufficient, full-time, teaching experience in his/her primary area of interest. All courses include a related laboratory experience. He/she will be required to plan and conduct a quality laboratory pro-gram. Primary Subjects: (i) Anatomy and Physiology (nontenure track): (ii) Ecology (tenure track); (iii) Physiology (tenure track): (iii) Ecology (tenure track); (iii) Physiology (tenure track); Experience in biochemistry, biostatistics, developmental biology, genetics, histology, molecular biology, vertebrate and/or invertebrate zoology would be beneficial. He/she will also be expected to participate in the appropriate and pairs for here the later. participate in the nonmajor and major freshman biology program and the department's student independent re-search program. Computer proficiency would also be most beneficial. Saint Anselm College is a private, 4-year liberal arts college situated in southern New Hampshire. It is committed to excellence in undergraduate education and has approximately 1700 students. Send curriculum vitae and the names of three references to: Dr. Robert F. Normandin, Chairman, Search Committee, Saint An-selm College, Manchester, NH 03102. Application deadline 28 February 1986. An Equal Opportunity Employer.

ASSISTANT RESEARCH BIOCHEMIST (Professor of Research Series) SALARY APPROXIMATELY \$30,000

Position available for Ph.D. in biochemistry with minimum of 5 years postdoctoral experience to do work in tumor invasion and metastasis. Established record required in hydrophobic chromatography, connective tissue biochemistry, and calcium-regulated proteases as demonstrated by publication of appropriate papers in reputable journals. Send curriculum vitae, bibliography, and names and addresses of four references to: Sanford Barsky, M.D., Department of Pathology, UCLA School of Medicine, Los Angeles, California 90024. UCLA is an Equal Opportunity/Affirmative Action Employ-er. Minority and women candidates are encouraged to apply.

POSITIONS OPEN

ASSISTANT PROFESSOR-PLANT GENETICIST

Tenure-track position fall 1986. Ph.D. preferred. Salary dependent on qualifications and experience. Teach introductory courses, botany, genetics, and cell biology. Ap-plication deadline 1 March 1986, Provide evidence of quality teaching. Send letter, curriculum vitae, transcripts, and three letters of reference to: Dr. R. L. Stoffer, Chair, Search Committee, Department of Biology, Ashland College, Ashland, Ohio 44805. Equal Opportunity/Affirmative Action Employer.

ASSISTANT RESEARCH SCIENTIST ASSISTANT RESEARCH SCIENTIST position available for Ph.D. in biochemistry or cell biology. Proficiency in cell culture techniques and transmission and freeze-fracture electron microscopy are essential. Expertise in lipid extraction and analysis by chromato-graphic techniques desirable. Duties include establish-ment of epidermal ceil cultures, electron microscopy of skin and culture samples, and lipid analysis of cultures by thin-layer and high-pressure liquid chromatography.

Salary commensurate with experience. Send résumé to: Dr. Kathi Madison, Department of Dermatology, University of Iowa Hospitals and Clinics, Iowa City, Iowa 52242. The University of Iowa is an Equal Opportunity Employer/Affirmative Action Employer.

BIOCHEMIST for New York City-based position in cancer research to study cellular biochemical pharmacol-ogy and metabolism of antipyrimidines and antipurines. plicants should submit curriculum vitae to: Box 1, Applicanto -SCIENCE.

BIOCHEMIST/CHEMIST-A tenure-track position is available in the area of the application of computation-al and computer graphic techniques to the analysis of biological macromolecules. The successful applicant would have a joint appointment in the Departments of Biochemistry and Chemistry, assume a leadership role in the operation of a computer graphics facility, teach courses in physical biochemistry and chemistry, and direct graduate student research. The successful applicant must have a Ph.D. degree and postdoctoral experience. Rank and salary commensurate with experience. Applica-tions will be considered on 1 March and every 2 weeks thereafter until the position is filled. Applications shall include curriculum vitae, a statement of research inter-ests, and three letters of recommendation to be sent independently. Send materials to: Dr. Robert F. Weaver, Department of Biochemistry, University of Kansas, Lawrence, KS 66045. KU is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST/MOLECULAR BIOLOGIST to work with Dr. Beverly Paigen examining molecular basis of genes to determine atherosclerosis susceptibility in the mouse. Experience in lipoprotein or lipid metabo-lism desirable. Appointment at postdoctoral (\$20,500 to \$22,800 annualized) or assistant scientist (\$27,900 annualized) level depending on qualifications. Send résumé with references to: Ruth Robinson, Director, Employ-ment Services, CHILDREN'S HOSPITAL, 747 52nd Street, Oakland, CA 94609. Equal Opportunity Employer

Ph.D. with approximately 20 years of experience in **BIOCHEMISTRY OF DEVELOPMENT** to lead project on regulation of hemopoiesis. Requirements are: administrative experience, undergraduate biochemistry administrative experience, undergraduate biochemistry teaching, supervision of graduate and postdoctoral stu-dents, published original articles. Salary: \$36,500 per annum. Reply to: Dr. E. R. Stanley, ALBERT EIN-STEIN COLLEGE OF MEDICINE, Chanin 513, 1300 Morris Park Avenue, Bronx, New York 10461. An Equal Opportunity Employer.

BIOCHEMISTRY POSTDOCTORAL RE-SEARCH ASSOCIATE: Ph.D. in biochemistry or medicinal chemistry. Research using biochemical and biophysical techniques to the study of the interaction of susing state-of-the-art facilities. Salary \$17,000 per year. Submit a letter of interest and curriculum vitae, including addresses and telephone numbers for three references, to: Dr. Bruce L. Currie, Medicinal Chemistry and Phar-macognosy Department, University of Illinois at Chi-cago, P.O. Box 6998 (M/C 781), Chicago, IL 60680. University of Illinois is an Equal Employment/Affirmative Action Employer.

REQUEST FOR PROPOSALS ON SPECIAL RESEARCH AREAS IN SUBSURFACE SOLUTE MIGRATION STUDIES

The Electric Power Research Institute's Energy Analysis and Environment Division is soliciting specialized research proposals pertinent to the following features of subsurface solute migration:

• In-situ measurement techniques for the subsurface environment • Synergistic-antagonistic interactions of organic and inorganic solutes • Theoretical (mathematical, statistical) developments in geochemical modeling of inorganic chemicals

 Methods for estimating the natural variability of groundwater quality over scales of approximately 1500 meters
 Methods for distinguishing interacting plumes from multiple sources
 Solute generation and reaction in hydrogeological regimes

Responses to this solicitation are to be in the form of a clearly stated scientific problem, the research approach and objective, the time schedule, and a cost estimate. Proposals should address some aspect of one of the above listed problem areas

... NOT ALL. A total effort in the range of one to one-andone-half person years per year for two to three years is desirable. Proposals from educational institutions involving graduate student participation are especially encouraged. A description and status of existing projects in EPRI's Solid Waste Environmental Studies subprogram will be made available.

If you wish to respond to this solicitation, request RFP2485-11 and write to Mr. Alan Kushnick, Proposals Office, EPRI, 3412 Hillview Avenue, P.O. Box 10412, Palo Alto, CA 94303.



RESEARCH SCIENTIST NEW PRODUCT DEVELOPMENT

Amgen, an industry leader in advanced biotechnology, is currently seeking several innovative and talented scientists to carry out research programs directed toward the identification and isolation of proteins which have potential applications in the human health care area. Areas of focus include cell differentiation and growth factors, anti-proliferative agents and immunomodulators.

The successful candidate will have a Ph.D. or M.D. degree, several years of post-doctoral experience, and a proven record of excellence in research in one of the areas described above.

Amgen is located in an attractive community about an hour northwest of Los Angeles, and offers a stimulating and challenging scientific environment, as well as an excellent compensation benefits program. Qualified candidates should direct a resume to:

Recruitment/DV





An Equal Opportunity Employer

Growth Biologists

The Agricultural Research Division of American Cyanamid Company has several excellent career opportunities at its Princeton, NJ location.

GROWTH BIOLOGY PROJECT LEADER

Individual will lead 3–5 scientists working in our basic animal growth and biotechnology program. The successful candidate will have a strong background in muscle and adipose biochemistry and physiology with particular emphasis on the use of in vitro techniques for the study of tissue metabolism. Knowledge of meat science and animal growth is highly desirable. A Ph.D in a related discipline, a minimum of 5 years' independent research experience, a strong publication record and experience in co-ordinating the work of several researchers is essential.

SENIOR RESEARCH GROWTH BIOLOGIST

Individual will work under the direction of a project leader in the area of muscle/ adipose biology. The successful candidate will design and conduct studies in both laboratory and meat animals for evaluation of test compounds as well as develop in vitro systems to study mode-of-action of carcass quality modifiers. A Ph.D and 1–2 years' post-doctoral experience in a field related to muscle/adipose tissue growth is required.

American Cyanamid offers a competitive compensation and benefits package. For prompt and confidential consideration, forward your resume and salary history to the Employment Office.



American Cyanamid Company

Agricultural Research Division P.O. Box 400 Princeton, New Jersey 08540 An Equal Opportunity Employer M/F/H

BIOLOGIST. Training in botany. Assistant professor, tenure track, Ph.D. Interest in molecular biology desirable. To teach/develop courses in specialties and in general biology. Research possible. Send curriculum vitae and complete transcripts, including three letters of recommendation, by 15 February 1986 to: Dr. Wilma Lehmann, Chairperson, Biology Department, North-eastern Illinois University, Chicago, Illinois 60625. Affirmative Action/Equal Opportunity Employer

BIOLOGIST/ZOOLOGIST, ACADEMIC, AS-SISTANT PROFESSOR, Ph.D., fall 1986. Opening for a broadly prepared biologist to teach (preparation and/or experience warranting) such courses as freshman biology, cell biology, histology, genetics, microbiology, and anatomy-physiology. Priority to candidates with documented teaching skills, who are enthusiastic about teaching biology and who are articulate. Send letter of application, resume and names, addresses and telephone numbers of references to: Frank A. James, Dean of the College, LaGrange College, 601 Broad Street, La-Grange, Georgia 30240, by 1 March 1986.

BIOSTATISTICIAN

A research faculty position in biostatistics is available at the Savannah River Ecology Laboratory (SREL) of the Institute of Ecology, University of Georgia. Candidates must be U.S. citizens, have a Ph.D. in statistics, biostatistics or statistical ecology, and a strong publication re-cord. Postdoctoral experience is preferred. Faculty rank and salary are negotiable. Major responsibilities include developing a strong independent research program in biostatistics and interacting with SREL's research ecolobiostatistics and interacting with SREL's research ecolo-gists. Candidates will have access to microcomputers, the VAX 11/750, IBM 3081 and Cray computer systems and statistical packages including SAS, SPSS, and BMDP. Interested persons should send a letter of application, curriculum vitae, transcripts, brief statement of research interest and goals, selected reprints, and names, addresses and salabase are selected reprints. and telephone numbers of four references to: Dr. Wil-liam D. McCort, Chairman, Biostatistician Search Committee, Savannah River Ecology Laboratory, Drawer E, Aiken, SC 29801; telephone: 803-725-2472, by 21 February 1986. An Equal Opportunity/ Affirmative Action Employer.

DEPARTMENT CHAIR: The Department of Chemistry at the University of Maryland Baltimore County (UMBC) invites applications and nominations for the position of department chair. The chair will be expected to provide vigorous leadership for a growing department of 17 faculty. The department offers Ph.D. degrees in both chemistry and biochemistry and applications are invited from internationally recognized scholars in any area of these disciplines who have a commitment to quality teaching at both the undergraduate and graduate levels. UMBC is located in suburban Baltimore about 35 miles from Washington, DC. To apply, send a résumé and the names of three persons who can be contacted for supporting letters to: Dr. R. M. Pollack, Department of Chemistry, UMBC, 5401 Wilkens Avenue, Ca-tonsville, MD 21228, UMBC is an Equal Opportunity/ Affirmative Action Employer, and applications from qualified women and minority candidates are welcomed.

STREAM ECOLOGIST

A research faculty position (assistant ecologist) in stream ecology is currently available at the University of Geor-gia's Savannah River Ecology Laboratory (SREL). Can-didates must have Ph.D.'s, postdoctoral experience, strong publication records, and be U.S. citizens. Primary research responsibilities will focus on microbial processes in the thermal and nonthermal ensure and unclude on in the thermal and nonthermal streams and wetlands on the U.S. Department of Energy's Savannah River Plant. Candidates should also have allied interests such as (i) organic and inorganic matter transport, storage and retention processes, and (ii) invertebrate community development and structure in both lentic and lotic environments. The successful candidate will work within the SREL Division of Wetlands Ecology and interact fre-quently with SREL research staff, university and federal personnel. The deadline for application is 21 February 1986. Applicants should submit curriculum vitae, transcripts, selected reprints, a letter of application stating research goals, and names, addresses and telephone numbers of four references to: Dr. Lyndon C. Lee, Chairman, Search Committee, Savannah River Ecology Laboratory, Drawer E, Aiken, SC 29801; telephone: 803-725-2472. An Equal Opportunity/Affirmative Action Institution

POSITIONS OPEN

BIOMEDICAL ENGINEERING, The University of Akron. Applications are being sought for tenure-track faculty positions to start in fall 1986. Preference will be given to candidates with research areas in biocontrols. artificial organs, hard tissue mechanics, image analysis, and motor and sensory systems. Applicants must have a Ph.D. in biomedical engineering or a related field. Résumés will be reviewed monthly until all positions are filled. Send résumés and the names and addresses of three references to: Dr. K. Mudry, Head, Biomedical Engi-neering, The University of Akron, Akron, Ohio 44325. The University of Akron is an Equal Education and Employment Institution.

CELL/MOLECULAR BIOLOGISTS. Two tenuretrack lines at an associate professor or senior assistant professor level, are available in anatomy, 1 July 1986. Individuals working in neurobiology or neuroendocrino logy of reproduction, will be given preference but closely related areas of research will be considered. Applicants must have an extensive bibliography, a proven record of extramural funding, and the ability to contribute to teaching of professional and graduate courses in anatomy. Excellent start-up funding, ample space and re-sources are available. Opportunities also exist for collabo-rative research with faculty in endowed centers for research in aging and cancer. Send curriculum vitae, career objectives with research goals, and names of four references to: Dr. M. B. Nikitovitch-Winer, Chair, Department of Anatomy, University of Kentucky Medical Center, Lexington, KY 40536, by 1 April

CHEMIST-PESTICIDE REGISTRATION. Senior level position with state regulatory agency as lead scien-tist for evaluation of residue, product chemistry, and environmental fate data and analytical methodology for agricultural chemicals. Ph.D. or equivalent experience required. Prefer person with experience in development of chemistry data for pesticides or other chemicals and/or related required are required. related regulatory experience. Salary \$39,084 to \$47,256 per year. Send résumé by 31 January to: California Department of Food and Agriculture, 1220 N Street, Room 126, Sacramento, CA 95814. Telephone: 916-222 5021 322-5031

DIRECTOR OF OCCUPATIONAL AND ENVIRONMENTAL SERVICES

Growing occupational and environmental health and safety consulting firm is seeking an environmental scientist/industrial hygienist to head up a multidisciplinary group including industrial hygienists, architects, and environmental specialists. Duties include project management and business development in the areas of asbes tos abatement, ground water contamination, industrial surveys, hazardous/toxic waste, and indoor air pollution. Person must have 10 years of experience, preferably in consulting environment, and a CIH or certification in engineering. Proven management skills needed. Salary commensurate with education and experience. An Equal Opportunity Employer.

Send salary requirement and résumé to: Joseph Saga, Carnow, Conibear and Assoc. Ltd., 333 West Wacker Drive, Chicago, IL 60606.

SYSTEMS MODELER

A research faculty position in systems modeling is available at the Savannah River Ecology Laboratory of the University of Georgia. Candidate must have a Ph.D. degree, a strong publication record, a strong background in modeling nutrient cycling and transport phenomena and/or chemical speciation. Candidate must be a U.S. citizen. Research emphasis will be on modeling the cycling and transport of heavy metals and nutrients in aquatic and/or groundwater systems. A chemical back-ground is desirable. Knowledge and experience with computer programming and simulation are necessary. Ability to work collaboratively and strong communica-tion skills will be weighed heavily in evaluating candidates. Rank and salary are negotiable. The deadline for application is 21 February 1986. Applicants should submit curriculum vitae, transcripts, selected reprints, a letter of application stating research goals, and names, addresses, and telephone numbers of four references to: Dr. D. C. Adriano, Chair of Search Committee, Savannah River Ecology Laboratory, Drawer E, Ai-ken, SC 29801. An Equal Opportunity/Affirmative Action Institution

POSITIONS OPEN

MILTON HARRIS CHAIR OF POLYMER CHEMISTRY AT OREGON STATE UNIVERSI-TY (OSU). The Chemistry Department at Oregon State University seeks candidates for an endowed position as professor of polymer chemistry. The ideal candidate will have a well-established and recognized research program in polymer science, enthusiasm for teaching at both graduate and undergraduate levels, and interest in helping to further develop our interdisciplinary program in advanced materials research. Salary is open, but will be at least \$50,000 for 9 months. We solicit suggestions of least \$50,000 for 9 months. We solicit suggestions of prospective candidates, as well as applications. Appli-cants should send complete curriculum vitae, including a list of publications, and a brief description (1 to 2 pages, single spaced) of research interests to either: Carroll W. DeKock, Chairman, or T. Darrah Thomas, Search Committee Chairman, Department of Chemistry, State University, Corvallis, OR 97331. Telephone: 503-754-2081. Further details can be obtained from either of these. Applications must be received by 15 either of these. Applications must be received by 15 March 1986. OSU is an Affirmative Action/Equal Oppor-tunity Employer, compliant with Section 504 of the Rehabili-tation Act of 1973. Applications from women and minority individuals are particularly encouraged.

CHEMISTRY DEPARTMENT CHAIR-Connecticut College, a small (1600), highly selective liberal arts college on Long Island Sound in southeastern Connecticut, seeks department chair with established record of dynamic teaching and ability to involve undergraduates in research. Opportunity to share in strengthening the role of science in liberal arts education. Area of specialty, rank, and salary open. Please send curriculum vitae, description of research interests, and names and addresses of at least three references to:

> Dean R. Francis Johnson Dean of the Faculty Connecticut College New London, CT 06320

Deadline for applications is 7 February 1986. Equal Opportunity Employer.

CLINICAL PHARMACOLOGIST. The Morehouse School of Medicine invites applications for a full-time faculty position in the Department of Pharmacology at the assistant or associate professor level. We seek candi-dates with the potential to develop a therapeutic drug monitoring service and reserach program related to clinical pharmacology. The position is available 1 July 1986. Please send curriculum vitae, statement of research Plans, and three reference letters by 1 April 1986 to: Dr. David W. Hein, Chairman, Department of Pharma-cology, Morehouse School of Medicine, 720 West-view Drive, Atlanta, GA 30310. An Equal Opportunity/ Affirmative Action Employer.

DEAN OF THE GRADUATE SCHOOL

DUKE UNIVERSITY invites applications and recom-mendations for the position of dean of the Graduate School. In a university committed to the highest stan-dards in research and graduate education, the dean of the Graduate School oversees a broad range of higher degree programs including all degree programs in arts and sciences and master's and Ph.D. programs in the basic medical sciences, engineering, forestry, and business. We seek a candidate with a distinguished personal record of research and publication, evidence of administrative abilresearch and publication, evidence of administrative abil-ity, and a range of experience in dealing with varied sectors of a university. The candidate should be qualified for appointment as professor in an academic department. Appointment is anticipated for 5 years, beginning in 1986 to 1987. Letters of nomination or application with curriculum vitae should be submitted before 31 January 1986 to Chairment Scarch Committee DUKE 1986 to: Chairman, Search Committee Defore 31 January 1986 to: Chairman, Search Committee, DUKE UNI-VERSITY, 212 Allen Building, Durham, NC 27706. Duke University is an Equal Opportunity Affirmative Action Employer

SENIOR RESEARCH LABORATORY MANAG-ER to head the Electron Microscopy Facility in the Department of Anatomy. Expertise in contemporary technique is essential for preparation of teaching and research specimens. A minimum of 5 years of experience research specifiends. A minimum of 5 years of experience and B.S. or M.S. degree are required. Starting salary: \$22,000. Send résumé, letters of support, and inquiries to: Dr. Nikitovitch-Winer, Professor and Chair, De-partment of Anatomy, University of Kentucky Medi-cal Center, Lexington, KY 40536–00849; telephone: 606-233-5155, by 1 April 1986.

BIOLOGY INSTRUCTOR

Del Mar College, Corpus Christi, Texas

Now accepting applications for tenure-tract position at the rank of instructor.

Applicants must possess recent M.S. or Ph.D. in biology with major emphasis in molecular and/or microbiology. Must have demonstrable success in teaching college level biology lecture and laboratory courses.

Duties include teaching general and/ or audio-tutorial biology, microbiology, anatomy and physiology, and natural science courses.

Salary, \$23,960.00 per 9 months (with M.S.). Position available August 1986.

Submit application, résumé, and transcripts by 31 March 1986 to:

Office of Human Resources

Del Mar College Corpus Christi, TX 78404 Affirmative Action Equal Employment Opportunity Employer

DEL MAR COLLEGE

VICE PRESIDENT FOR RESEARCH AND GRADUATE STUDIES NORTHWESTERN UNIVERSITY Evanston, Illinois

Northwestern University invites nominations and applications for the position of vice president for research and graduate studies.

The vice president for research and graduate studies is a newly created position to facilitate the scholarship of faculty and graduate students in all schools of the university. The vice president fosters interdisciplinary initiatives, also encouraging and facilitating the search for external funds. The vice president oversees distribution of appropriated and endowed funds which promote scholarly excellence among faculty and graduate students throughout the university. The vice president also works with faculty and industry, as appropriate, to help develop research initiatives of mutual interest. The vice president is responsible for more than \$100,000,000 in research proposals and administers a current annual budget of more than \$35,000,000. As chief officer for graduate programs, the vice president chairs the faculty of the graduate school, administers graduate admissions and financial aid, stimulates new programs, and monitors curriculum requirements, and the awarding of graduate degrees. The vice president serves as a member of the president's staff and of the deans' council.

Nominations and applications should be sent by 31 January 1986, to: Dr. Thomas D. Cook, Chair, Vice Presidential Search Committee, c/o Department of Psychology, Kresge Centennial Hall, Northwestern University, Evanston, Illinois 60201.

Northwestern is an Equal Opportunity Employer.

Director MRC Cyclotron Unit: Hammersmith Hospital, London

The Medical Research Council invites applications for the post of full-time Director of the MRC Cyclotron Unit on the retirement of the present Director, Mr. D. D. Vonberg.

In the future, the Unit's research programme will be focused on positron emission tomography (PET), radiochemistry and nuclear magnetic resonance (NMR) spectroscopy and their potential for application to clinical problems. Research facilities, which will include a new cyclotron for radioisotope production and state-of-the-art equipment for the PET and NMR work, will continue to be provided in the Unit's present accommodation which is located at Hammersmith Hospital, Du Cane Road, London W12. There will also be close links with the MRC-supported NMR imaging programme at Hammersmith and NMR spectroscopy programme at Oxford.

The new Director will be expected to put forward research proposals which are appropriate both to the existing expertise within the Unit and to his/her own personal scientific interests. The precise scope and emphasis of the Unit's future programme will be a matter for discussion between the successful candidate and the Council. The person appointed will have an established reputation as a scientific investigator, be able to develop the Unit's research programme and have the ability to manage and coordinate a research team. He or she need not be medically qualified but will be required to establish active research links with clinicians in order to foster the applied aspects of the Unit's work and to develop the existing close collaboration between the Unit and clinical departments at Hammersmith Hospital.

An appointment to the Council's staff will be in accordance with the Council's terms and conditions of service and superannuation provision will be under the MRC pension scheme. The salary will be within the Council's special appointments grade which is equivalent to the Universities' professorial range. If appropriate the successful candidate may be offered assistance with moving expenses.

Additional information may be obtained from Dr. Fiona Spencer, MRC Headquarters Office, 20 Park Crescent, London W1N 4AL, telephone 01-636 5422 ext. 348.



Applications in the form of a short statement (not exceeding 1000 words) outlining in general terms the scientific programme which the applicant would propose for the Unit, together with a *curriculum vitae*, list of publications, and the names of three referees, should be submitted no later than 3rd March, 1986 to the Secretary of the Medical Research Council at the above address.

THE UNIVERSITY OF SYDNEY-AUSTRALIA Chair of Biology Reference Number 51/04

Applications are invited for a chair of biology in the School of Biological Sciences. The chair will be filled in animal biology, with emphasis on whole animal biology. Preference may be given to candidates with an interest in the biology of animals in the field. Possible research areas include community ecology, population ecology, behavior, comparative physiology, and evolutionary biology. Intending applicants should obtain a detailed statement of information concerning the chair from the registrar.

Salary will be at the rate of \$57,036 per annum. (Aust.) Applications in duplicate, quoting reference number, including curriculum vitae, list of publications, and the names and addresses of three referees, by 21 March 1986, to the Registrar, University of Sydney, Australia NSW 2006.

The university reserves the right not to proceed with any appointment for financial or other reasons. *Equal Employment Opportunity is university policy*.

DEPARTMENT CHAIRMAN

The University of Central Florida (UCF) announces a search for the position of chairman of the Department of Physics. The chairman is expected to provide strong leadership in further developing the department's research and teaching programs and to build research links with local high-technology federal and industrial laboratories, particularly those located in 1200-acre research art adjacent to the campus. Departmental research interests include electro-optics and lasers, Mössbauer spectroscopy, quantum-limited measurements, environmental physics, and physics instruction. The Department of Physics co-directs the Florida Center for Research in Electro-Optics and Lasers. UCF is a part of the state university system of Florida and currently enrolls more than 15,000 students. The university offers the Ph.D. degree in computer science and in engineering with several others, including physics, in planning stages. The department faculty of ten members currently offers the B.S. and M.S. degrees. Applicants must hold a doctorate in physics and have a research record and commitment to teaching that justifies appointment at the rank of professor. Applicants should be prepared to assume duties by 1 August 1986. Send letter of application, curriculum vitae, and list of three references to: Chairman, Search Committee, Department of Physics, University of

To be assured consideration, applications must be postmarked by 25 February 1986. UCF is an Affirmative Action/Equal Opportunity Employer.

COMPUTER PROGRAMMER. Immediate opening at the University of Virginia, Charlottesville, Virginia, for a computer programmer with a background in image processing who will be responsible for writing algorithms for cardiac image analysis using a kontron system with an array processor interfaced to a MICROVAX-II. Experience with Fortran-77 required. Will be trained in writing microcode. Salary negotiable. Reply to: Sanjiv Kaul, M.D., Box 158, Division of Cardiology, University of Virginia, Charlottesville, VA 22908. Telephone: 804-924-9605. The University of Virginia is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION UNIVERSITY OF CENTRAL FLORIDA (UCF)

The Department of Physics invites applications for a tenure-track position at the assistant professor rank, beginning August 1986. Duties include teaching and research. Applicants should hold a doctorate in physics, or expect it by 31 August 1986, and have the ability to make strong contributions to one or more of the existing research programs, which include electro-optics and lasers, Mössbauer spectroscopy, quantum-limited measurements, and environmental physics. The Department of Physics offers B.S. and M.S. degrees and co-directs the Florida Center for Research in electro-optics and lasers. A major research park is adjacent to the campus. Send tetre of application, curriculum vitae, and names of three references to: Chairman, Search Committee, Department of Physics, University of Central Florida, Orlando, FL 32816–0993. To assure consideration, applications must be postmarked by 25 February 1986. UCF is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

DEVELOPMENTAL POSITIONS

The Department of Biology at the University of Northern Iowa invites applications for two tenure-track positions.

DEVELOPMENTAL BOTANIST. Teaching responsibilities for the position include undergraduate and graduate courses in anatomy, morphology, development, and general biology. The department has high expectations for effective teaching and productive research. The area of research in developmental botany is open. Postdoctoral or equivalent experience required. Applicants conducting research using SEM/TEM will be given preference. The successful candidate will be expected to direct undergraduate and master's-level student research and to secure external funding. Employment to begin January 1987.

DEVELOPMENTAL BIOLOGIST. Teaching responsibilities include developmental comparative vertebrate anatomy, an advanced course in the applicant's specialty area, and participation in a non-majors' anatomy and physiology course or general biology. The area of research in developmental biology is open. Postdoctoral experience desirable. The department has high expectations for effective teaching and productive research. The successful candidate will be expected to direct undergraduate and master's-level student research and to secure external funding. Employment to begin August 1986.

Applicants should specify position and send curriculum vitae, graduate transcripts, a statement of interests and goals in both teaching and research, reprints, and three letters of recommendation before 21 February 1986 to: Dr. Daryl D. Smith, Head, Department of Biology, University of Northern Iowa, Cedar Falls, Iowa 50614–0421. An Equal Opportunity/Affirmative Action Employer.

DEVELOPMENT CHEMIST—CHROMATOG-RAPHY: This position requires a Ph.D. in chemistry, 1 year of experience in either marketing or academic research of the use of liquid chromatography. The candidate will be responsible for inventing new materials and methodologies which are useful to other analytical chemists who use chromatography. The candidate will be required to use the liquid chromatography technique and conduct scientific studies of the chemistry of material surfaces, adsorption and desorption phenomena, and chemical reactions. The candidate must have a proven record in chromatographic science research by virtue of numerous scientific publications, experience in silanol reaction chemistry, and experience in HPLC column loading techniques. Salary range is \$3500 to \$3850 per month. Send résumé, along with a list of publications, to: Thelma Jones, Division of Employment and Training, 3301 Lancaster Pike, P.O. Box 2168, Wilmington, DE 19898. Job Reference Number 601640.

DIRECTOR DIVISION OF MARINE SCIENCES Harbor Branch Foundation, Inc.

Applications are invited for the position of **MARINE SCIENCE DIRECTOR** at Harbor Branch Foundation, an institution established primarily for research in the marine sciences and for the development of tools for underwater oceanographic research. The Division of Marine Science consists of 36 marine scientists, research assistants, and postdoctoral fellows, plus support staff. The successful candidate will oversee the development and coordination of ongoing interdisciplinary programs in lagoonal, shelf, and open ocean research, some of which involve shipboard and submersible operations on vessels and submersibles owned and operated by Harbor Branch Foundation.

Candidates must have an earned doctorate in a marinerelated science, a distinguished research record, demonstrated administrative and leadership skills, and proven ability to attract outside funding. The director will be expected to maintain a vigorous research program in his/ her area of specialty. Interested applicants should forward an application, including résumé, supporting materials, and names of three references by 1 March to:

Dr. Kiven J. Eckelbarger Search Committee Chairman Harbor Branch Foundation, Inc. RR 1, Box 196 Fort Pierce, Florida 33450 Harbor Branch Foundation is an Equal Opportunity Employer

POSITIONS OPEN

ECOLOGY/EVOLUTIONARY BIOLOGY

The Department of Biology at the University of Utah seeks to fill a tenure-track position (rank open) in ecology/evolutionary biology. We are especially desirous of applications from individuals with research interests in population biology (including population genetics), but would also welcome outstanding applicants representing other disciplines in the areas of evolutionary biology and ecology. The successful applicant will be expected to develop (or continue) a strong, independent research program, and to contribute to undergraduate and graduate instruction. We are particularly hopeful of attracting a person who will interact in a mutually beneficial way with existing faculty and graduate students. Applications will be accepted until position is filled, but we expect to begin interviewing candidates about mid-March.

Interested persons should send a letter of application, curriculum vitae, and three letters of recommendation or the names of three individuals willing to serve as references to:

Dr. Diane W. Davidson Department of Biology University of Utah Salt Lake City, UT 84112

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

FACULTY POSITION IN MOLECULAR BIOLO-GY. The Department of Microbiology at the Medical College of Wisconsin is seeking applicants for a senior faculty position available 1 June 1986. An individual with an established research program in molecular biology of microbial pathogenesis is desired. Teaching responsibilities are minimal and include participation in the instruction of graduate and medical students. Applicants should forward curriculum vitae, brief statement of research interests, and names of three professional references by 28 February 1986 to: Molecular Biology Search Committee, Department of Microbiology, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226. Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION

Biochemist with subspecialty in inorganic and/or physical chemistry, to teach undergraduate biochemistry courses in the area of the subspecialty, and to direct undergraduate research in biochemistry. Ph.D. in chemistry or biochemistry required, and teaching experience or postdoctoral research preferred. A tenure-track appointment, initial appointment for 3 years, beginning September 1986. Send curriculum vitae, transcripts, and three recommendations to: Kenneth Hellman, Chair, Department of Chemistry, Smith College, Northampton, MA 01063. Applications received before 1 February 1986 will receive first consideration. An Equal Opportunity Employer. Women and minorities encouraged to apply.

FACULTY POSITION FACULTY OF PHARMACY UNIVERSITY OF TORONTO

Applications are invited for a tenure-stream appointment at the level of assistant professor and commencing 1 July 1986. Candidates must hold the Pharm. D. degree and have at least 3 years of postdoctoral research training in the field of drug toxicology. It is expected that the candidate will have demonstrated an ability to function as an independent investigator, as evidenced by grants and publications and should have experience in teaching toxicology at the undergraduate and graduate levels. The candidate will be expected to develop an independent program of research, to supervise graduate students, and to develop collaborative associations with existing investigators in the faculty and elsewhere within the university. Upon arrival, the candidate will be required to develop and teach undergraduate courses in toxicology in the Faculty of Pharmacy, and in the baccalaureate program of toxicology in the Faculty of Arts and Science. At the graduate level, the candidate will be expected to teach in a number of toxicology courses in the School of Graduate Studies. In accordance with Canadian immigration requirements, priority will be given to Canadian immigration nequirements, priority will be given to Canadian iteress and landed immigrants. Send curriculum vitae and a brief (one- or two-paragraph) outline of future research, and arrange to have sent three letters of reference, by 1 March 1986 to: Dean, Faculty of Pharmacy, University of Toronto, 19 Russell Street, Toronto, Ontario, Canada M55 1A1.

BIOMEDICAL SPECTROSCOPIST

Battelle's Columbus Division, a world leader in professional research and development services, has a current need for an individual with 5 or more years' of post-doctorate experience in research and project management. Training and experience in molecular biology, medicine, biochemistry, biochemical engineering, or related chemical/engineering areas is necessarv

This position is with the Battelle operated National Center for Biomedical Infrared Spectrascopy, an NIH Center of excellence. Potential responsibilities include leading selected basic and applied research activities in the National Center, project management, and line management.

Battelle offers competitive salaries and comprehensive benefits. Qualified candidates should send their resumes to: Mr. Richard Shaw, Employment Department T-6, Battelle Columbus Division, 505 King Avenue, Columbus, Ohio 43201-2693. An Equal Opportunity/Affirmative Ac-tion Employer M/F/H.

Battelle

Columbus Division

A senior faculty position, with tenure, at the University of California, Los Angeles.

Joint appointment in the Department of Physiology, School of Medicine, and The Crump Institute for Medical Engineering, effective July 1, 1986. Salary and rank to be determined according to experience. Duties include graduate teaching of topics in dynamical systems theory to graduate students of Physiology and other departments, and possibly some lectures in the medical curriculum. Half time or more will be reserved for research. Candidates should have a strong background in physical and mathematical biolony with emphasis on topological approaches to dynamic stability and analysis of biological rhythms.

The appointee will spend most of his time at the Medical Engineering Institute, which is a multidisciplinary group of about twelve scientists from Phys-ics, Engineering, Physiology, Medicine, Psychology and Pediatrics. He will be expected to participate in the regular multidisciplinary work of the Institute scientists, who jointly undertake research projects that apply physical, mathematical and engineering knowledge to biomedical problems, theoretical or practical and clinical. He will also have the opportunity to work collaboratively with members of the Physiology Department, according to mutual agreements, in addition to maintaining his own research program.

The base salary for this senior position is funded by the State of California and is a 12 month/year salary commitment

Please send statements of interest and curriculum vitae to

Dr. F. Eugene Yates, Director Crump Institute for Medical Engineering University of California, Los Angeles 6417 Boeiter Haii Los Angeles, California 90024

BEFORE: March 1, 1986

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Allow 6-8 weeks for response. All candidates must have U.S. citizenship or permanent resident visa status. No agency referrals, please.

ZYMOGENETICS, INC. is a genetic engineering company focusing on the research and development of human and other proteins of pharmaceutical and industrial value. Four scientist positions are now open for researchers at the **Ph.D. level** with postdoctoral training in the following fields:

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Two positions are available for individuals with a strong background in animal cell biology as well as research experience in one or more of the following areas:

- Protein Secretion in Mammalian Cells
- Heterologous Gene Expression
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One position is open for a candidate with a rigorous understanding of protein chemistry as well as research experience in one or more of the following areas:

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- Carbohydrate Chemistry
 Protein Secretion in Mammalian Cells

Yeast Biologist

This position is for an individual specializing in molecular or cell biology of yeast and also requires experience working on:

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- Heterologous Gene Expression
- Physiology/Biochemistry

ZymoGenetics has a commitment to excellence in research, and offers its research staff a flexible, innovative environment. Our Seattle location, proximate to the University of Washington, affords opportunities for professional development as well as a rich variety of recreational and cultural activities.

Applicants should submit a letter of application with a brief statement of research interests, curriculum viae, and an identification of three references to Laura Castellano, Dept. SC117, 2121 N. 35th Street, Seattle, WA 98103. Telephone (206) 632-4036. Equal Opportunity Employer.



ENVIRONMENTAL HYGIENE

Columbia University School of Public Health invites applications for two tenure-track appointments as assistant professor and instructor of public health (environmental sciences) to operate environmental monitoring laboratory and to provide environmental hygiene instruction for graduate students. Doctoral degrees and experience in teaching advanced laboratory procedures required. C.I.H. preferred for assistant professor. Send curriculum vitae and at least three references (telephone numbers) by 7 February 1986 to: Dr. G. Sewell, Columbia University, 60 Haven Avenue, New York, NY 10032. Columbia University is an Equal Opportunity/ Affirmative Action Employer. Women and minorities are encouraged to apply.

EXECUTIVE VICE PRESIDENT for the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America. A proven record of administrative and managerial experience is essential, preferably in agriculture, natural resources, or a closely related field. A Ph.D. in agronomy, crop science, soil science, or a closely related field is required. Responsibilities will include supervising the implementation of policy decisions of the Board of Directors of each society and administrative leadership for professional activities of the societies. Person must have capabilities and characteristics needed to work effectively with Board of Directors, committees, members, and headquarters staff. Salary will be competitive and commensurate with qualifications and experience. Will be located in Madison, Wisconsin. Closing date for receipt of résumés to: D. R. Buxton, Chair, Screening Committee, Department of Agronomy, Iowa State University, Ames, IA 50011.

FACULTY POSITIONS: The Department of Anatomy at the University of Mississippi Medical Center invites applications for two tenure-track faculty positions, one at the junior level (instructor/assistant professor) and one at the senior level (associate professor). Although research areas are open, individuals with expertise in cell biology, immunocytochemistry, histochemistry, or cerebellar neurophysiology are encouraged to apply. Teaching responsibilities will be in gross anatomy or histology. The successful candidates should have (i) teaching experience, (ii) publications, and (iii) a significant potential for (junior level) or a proven record of (senior level) extramural funding. The department is well equipped and there is excellent administrative support for basic sciences. Submit curriculum vitae, a letter of introduction, and have three letters of reference sent to: Dr. D. E. Haines, Professor and Chairman, Department of Anatomy, The University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216–4505. Equal Opportunity Employer, M/F/H/ V.

FACULTY POSITION

The Department of Cellular and Structural Biology invites applications for a full-time, tenure-track position. Primary concern will be given to individuals with research expertise in molecular genetics in the areas of mammalian gene expression and regulation by nuclear proteins, but all applicants in related areas will be considered. We seek an investigator with promise of, or with a record of, scholarship and extramural funding success who will complement the research interests in our genetics program, which include gene characterization and expression, gene mapping, cytogenetics, somatic cell genetics, and immunogenetics. The investigator is expected to build a strong sponsored research program, supervise graduate students, and teach graduate level courses in his/her specialty.

Applicants should submit curriculum vitae, a statement of professional goals, a record of research support, names, addresses, and telephone numbers of at least three references by 28 February 1986 to:

Barbara H. Bowman, Ph.D. Professor and Chair Department of Cellular and Structural Biology The University of Texas Health Science Center at San Antonio 7703 Floyd Curl Drive San Antonio, Texas 78284 An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

FACULTY POSITION. The Department of Microbiology, Biochemistry, and Molecular Biology invites applications for a tenure-track assistant professor appointment at the School of Medicine, University of Pittsburgh. We are interested in individuals with a strong background in molecular biology. Candidates should have experience with recombinant DNA technology and plan to apply these techniques to the investigation of biological problems. This person is expected to develop an independent research program and in addition, have an interest and an aptitude for teaching graduate and medical students. Candidates must have a Ph.D. or M.D. degree and at least 2 years of postdoctoral research experience. Application deadline: 1 March 1986. Applicants should send curriculum vitae, bibliography, summary of research plans, and names and addreses of three references to: Dr. Patricia Hoffee, Department of Microbiology, Biochemistry, and Molecular Biology, School of Medicine, University of Pittsburgh, PA

FACULTY POSITION

The Department of Earth and Environmental Sciences and the Department of Engineering invite applications for a tenure-track position from individuals who have a strong interest in students, research, and in teaching applied science in an interdisciplinary setting.

Candidates should have an earned Ph.D. or be in the final stages of the degree with a background in environmental engineering or applied meterology. The successful candidate will have the added responsibility of coordinating the environmental engineering program.

The departments house exceptionally attractive and stateof-the-art facilities for professional growth and interaction with an active faculty. The school is at close proximity to the industrial centers of New York, Philadelphia, and Boston.

Applicants should send their résumé to: Chairman, Department of Earth and Environmental Sciences, Wilkes College, Wilkes Barre, PA 18766. An Affirmative Action Employer.

A tenure-track FACULTY POSITION in biomedical engineering at Worcester Polytechnic Institute (W.P.I.) is available. Although the levels of appointment and area of specialization are open, strong preference will be given to senior level applicants in either magnetic resonance imaging (MRI) or the in vivo application of magnetic resonance. Clinical and research magnetic resonance facilities are currently under construction at the Massachusetts Biotechnology Research Park in Worcester, and strong collaborative ties with the University of Massachusetts Medical School in Worcester exist. Other areas of particular interest are: biomechanics, biomaterials, biosensors, applied neurophysiology, signal analysis and applications of mathematics, and system analysis techniques to physiology. Candidates will be expected to develop a vigorous research program with external funding and be committed to quality teaching. Applications should include curriculum vitae, statements of research and teaching interests, representative reprints/preprints, and names of three or more references to be sent to: Dr. Robert A. Peura, Biomedical Engineering, W.P.I., WP.I. is an Affirmative Action/Equal Opportunity Employer.

PHARMACOLOGY FACULTY POSITIONS

The Department of Biomedical Sciences of the University of Illinois College of Medicine at Rockford invites applications for two tenure-track faculty positions, preferably at the assistant professor level. Applicants should hold the Ph.D. and/or M.D. degree(s) and have at least 2 years of postdoctoral training. Successful candidates will be expected to develop productive, independently funded research programs and participate in teaching pharmacology to medical students. Applicants with interests in all areas of pharmacology will be considered. Positions will be available beginning 1 July 1986. Curriculum vites statement of research plans and the

Curriculum vitae, statement of research plans, and the names of three references should be sent to: Pharmacology Search Committee, Department of Biomedical Sciences, University of Illinois College of Medicine at Rockford, 1601 Parkview Avenue, Rockford, Illinois 61107–1897. Deadline is 15 March 1986. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

FACULTY POSITIONS IN PHARMACOLOGY AND PHYSIOLOGY

The Department of Physiology and Pharmacology at Bowman Gray School of Medicine of Wake Forest University invites applications for tenure-track positions at a level commensurate with experience. Candidates will be expected to teach medical and graduate students. Preference will be given to individuals with demonstrated interest in research on aging. Send curriculum vitae, a brief description of research and career goals, and have three letters of reference sent to: Dr. Alvin Brodish, Chairman, Department of Physiology and Pharmacology, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, NC 27103 Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION Department of Earth and Space Sciences University of California, Los Angeles

The Department of Earth and Space Sciences is seeking an outstanding scientist to fill a tenure-track faculty position in planetary physics/planetology. Individuals with interests in any aspect of planetary science are encouraged to apply. Applicants are expected to have a Ph.D. in planetary physics/planetology, or a closely related field and be at a relatively early stage of their career working in new and emerging areas of the science. The successful candidate will be expected to play a key teaching role and to carry out a vigorous research program at the forefront of planetary physics/planetology. Applicants should send complete curriculum vitae, including a brief summary of previous research and teaching, a short statement of future research and teaching plans, a bibliography, and the names of at least three references prior to 15 February 1986 to: Professor William I. Newman, Chair, Planetology Search Committee, Department of Earth and Space Sciences, University of California, Los Angeles, CA 90024. The candidate should arrange to have three letters of reference transmitted directly to the above address. *The* University of California is an Equal Opportunity/Affirmative Action Emblover.

GENE TRANSFER SPECIALISTS POSITIONS AVAILABLE IMMEDIATELY

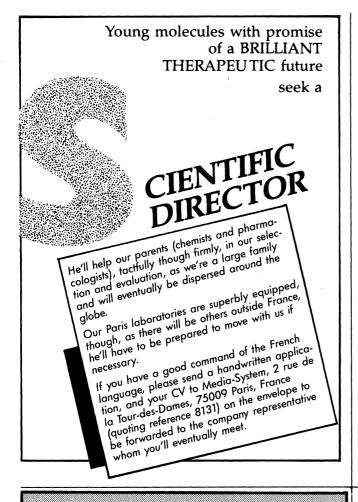
Small biotechnology company located in the southwest has two positions for gene transfer specialists. Applications are requested from Ph.D. scientists, as well as technical personnel. Project involves basic and applied research in mice and farm animals. Interested parties should send curriculum vitae to: **Box 2, SCIENCE**.

GENERAL BIOLOGY. Tenure-track Assistant Professor position in Biological Sciences Program at North Carolina State University, available August 1986. Duties include teaching large classes in introductory biology as a member of a closely coordinated instructional team and developing a productive research program in an appropriate department. Candidates must have a Ph.D. in biology or a related field, prior teaching experience, and must be able to communicate well to large classes.

must be able to communicate well to large classes. Send curriculum vitae, graduate and undergraduate transcripts, statement of prior experience and interest in undergraduate teaching, and three letters of reference before 1 March to: Dr. C. F. Lytle, Coordinator Biological Science Program, North Carolina State University, Box 7611, Raleigh, NC 27695-7611. Equal Opportunity/Affirmative Action Employer.

IMMUNOCHEMIST—IMMUNODIAGNOSTIC DEVELOPMENT. B.S., M.S., and Ph.D. level candidates with skills and industrial experience in applied immunochemistry are required for a young, dynamic, and rapidly growing diagnostic firm. Strong emphasis on product development skills in enzyme immunoassay systems using paper technology on dipstick devices using innovative portable instrumentation. Personnel will be involved in the development of diagnostic products based on unique concepts requiring enzyme-antibody isolation and purification of biologically active components, and paper diffusion techniques. Submit résumé stating experience, special interests, salary history, and career goals to:

> Personnel Director Genesis, Laboratories, Inc. 5245 Edina Industrial Boulevard Minneapolis, MN 55435



NUCLEOTIDE BIOCHEMISTRY

Due to continued growth, we have an immediate need for a Senior Research Biochemist to become part of our innovative tumor biology group. An opportunity to do fundamental research in the area of purine and pyrimidine metabolism in normal and tumor cells. The applicant should have a PhD in biological sciences with 1-2 years of post-doctoral experience in biochemistry and enzymology. The ability of the applicant to work independently as demonstrated by publication records and to work well as part of a group is essential.

Merrell Dow Research Institute is a subsidiary of Dow Chemical located in suburban Cincinnati. We offer excellent compensation, comprehensive benefits and relocation assistance. If you are interested in fundamental research and would like to work for a rapidly growing research institute, send your curriculum vitae with names of three references to:

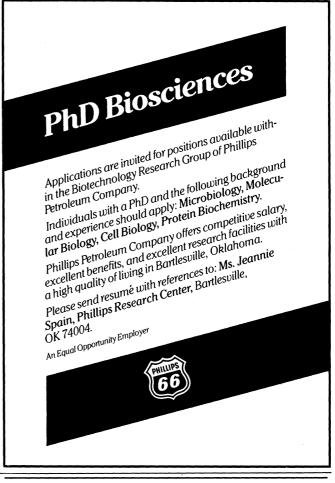
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Position Title: Chief, Laboratory of Experimental Therapeutics and Metabolism

Grade Range: GM-15 Salary Range: \$52,262

Location of

Qualifications:

Position:

ge: \$52,262-\$67,940 depending upon qualifications. (Candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service) Building 37, National Institutes of Health,

Building 37, National Institutes of Health, Bethesda, Maryland Research scientist with credentials in biochemical

toxicology, pharmacology, and metabolism of drugs and other environmental chemicals relevant to cancer chemotherapy. Candidates must have a Ph.D. in biochemistry, or its equivalent, and a minimum of six years experience in directing and providing leadership for a large multidisciplinary research program.

Responsibilities include the development and administration of the above research program in order to generate basic information on tumor biology, experimental chemotherapy, and toxicology, that will contribute to the improvement of cancer treatment. Point of contact for further information:

Point of contact for further information: Dr. Michael R. Boyd Associate Director Developmental Therapeutics Program National Cancer Institute National Institutes of Health Landow Building, Room 5A-21 9000 Rockville Pike Bethesda, Maryland 20892 Telephone: (301) 496-8720 NIH IS AN EQUAL OPPORTUNITY EMPLOYER

GENETICIST—The Department of Biology, Washington College, invites applications for a tenure-track position at the assistant professor level (Ph.D. required). Applicants should have a strong background in cellular Applicants should have a strong background in cellular and molecular biology. Teaching responsibilities include general biology (one semester), genetics, and two other upper level biology courses. The successful candidate should have some competency in botany/coology. Prishould have some competency in borahy/ecology. Pri-mary responsibility is teaching, but research is strongly encouraged and expected. Washington College is located on the banks of the Chester River, a major tributary to the Chesapeake Bay on Maryland's Eastern Shore. Wash-ington, DC, Baltimore, and Philadelphia are within easy driving distance. Send curriculum vitae and three letters of recommendation by 28 Competence of the Dended Munson, Department of Biology, Washington Col-lege, Chestertown, Maryland 21620.

GENETIC TOXICOLOGIST-Conduct in-house Genetic Toxicology studies and monitor studies in exter-nal contract laboratories or pharmaceutical compounds and medical devices. Prepare study protocol, review standard operating procedures associated with specific study, follow-up on progress, review and evaluate raw data to ensure study carried out was scientifically sound and complies with good laboratory practices. Write report on studies and review general toxicology summar-ies for domestic and international regulatory submissions. Utilize experience in conduct and evaluation of general toxicology tests, microbial, DNA repair, mam-malian cell point mutation: cell transformation in vivo and in vitro cytogenetic assays (micronucleus, chromo somal aberrations, sister chromatid exchange). Ph.D. in genetics plus 1 year in job or 1 year postdoctoral research in general toxicology required. Forty hours per week; 8:00 a.m. to 4:30 p.m.; \$24,100 per year. Résumé to: NYS Job Service, 55 Church Street, White Plains, NY 10601, include JO Number 041.061.050. 0703379, DOT

HEMATOLOGIST/ONCOLOGIST—The Department of Medicine at the University of California (UCSD), San Diego is recruiting a hematologist/oncologist at the assistant professor level to join the Division of Hematology/Oncology at the Veterans Administration Medical Center and the UCSD School of Medicine. The unplicate should be a physician who is skilled as a applicant should be a physician who is skilled as a clinician and teacher in hematology/oncology and who has demonstrated ability in independent laboratory investigation, preferably molecular genetics. The appointee must be licensed in California and Board-certified/eligible in either hematology or hematology and medical oncology. Please send curriculum vitae to:

Ivor Royston, M.D. Chairman, Search Committee Department of Medicine, V-111E University of California, San Diego La Jolla, CA 92093

Salary commensurate to experience. Closing date for accepting applications for this position is 21 February 1986. The University of California, San Diego is an Equal Opportunity/Affirmative Action Employer.

HISTOLOGY

Assistant or associate professor of histology. Requirements: Ph.D. with preparation in histology and anato-my; commitment to teaching podiatric medical students and graduate students; minimum 5 years of full-time teaching experience. Applicants should be engaged in teaching experience. Applicants should be engaged in active ongoing research program. Responsibilities in-clude lecture, laboratory, and student advising. Salary open. Send résumé, transcripts, and three letters of recommendation by 10 February 1986 to: Sister John Karen Frei, O.P., Ph.D., Associate Vice President, Academic Health Science Center, Barry University, Miami Shores, Florida 33161. An Equal Opportunity Eurology Employer

HISTOLOGY, ANATOMY, AND PATHOLOGY LABORATORY INSTRUCTORS

Two full-time laboratory instructors with responsibilities for laboratory instruction in at least two of the above areas. Requirements: master's/Ph.D. and demonstrated teaching ability. Send detailed curriculum vitae, transcripts, and three letters of recommendation by 10 February 1986 to: Sister John Karen Frei, O.P., Ph.D., Associate Vice President, Academic Health Science Center, Barry University, Miami Shores, Florida 33161. An Equal Opportunity Employer.

POSITIONS OPEN

UNIVERSITY OF PENNSYLVANIA SCHOOL OF MEDICINE SECTION OF HEMATOLOGY-ONCOLOGY

The Section of Hematology-Oncology, Department of Medicine at the University of Pennsylvania is actively seeking applications for a tenure-track position. The applicants should have an M.D. degree, with training in hematology or oncology, and an active independent research interest in molecular biology. The appointee will be expected to devote the majority of his/her time to laboratory research. Interested individuals should send a letter of inquiry and an accompanying curriculum vitae to: Search Committee, Hematology-Oncology Sec-tion, 7 Silverstein Pavilion, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104. Affirmative Action/Equal Opportunity Employer.

IMMUNOLOGIST/CELL BIOLOGIST-Research associate or instructor interested in the regulation of lymphocyte growth/differentiation and tolerance. Postdoctoral experience in cellular or molecular immunology. doctoral experience in cellular or molecular immunology, with interests in intracellular signalling and membrane biochemistry desirable. Salary negotiable. Funding for minimum of 2 years, with possibility of renewal. Avail-able immediately. Send curriculum vitae and three refer-ences to: David W. Scott, Box 704, Immunology Unit, University of Rochester Cancer Center, Roch-ester, NY 14642. An Equal Opportunity/Affirmative Ac-tion Employer tion Employer

IMMUNOLOGY/IMMUNOGENETICS MOLECULAR BIOLOGY AS RELATED TO DIABETES

The Banting and Best Department of Medical Research, University of Toronto, is seeking candidates for the position of assistant professor (tenure-stream). The position is available 1 July 1986, and will carry an initial appointment of 5 years at a competitive salary. Candidates should have a strong background in the areas of immunology/immunogenetics and molecular biology, and be prepared to develop a strong research program in immunology and genetics related to diabetes. Successful candidates will be expected to attract independent re-search grants and to spend at least 75 percent of their time in research. Applicants should forward a curriculum vitae, an outline of research interests, and the names of three references to: Dr. David H. Maclennan, Profesor and Chairman, Banting and Best Department of Medical Research, University of Toronto, 112 Col-lege Street, Toronto, Ontario, Canada M5G 1L6.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

INSTRUCTOR POSITIONS

Six special 1-year positions as instructor to gain experience in patient care, education, and research in one of the various subspecialities of ophthalmology. Satisfactory completion of ACGME-approved ophthalmology resi-dency a prerequisite. Contact: Paul R. Lichter, M.D., Chairman, Department of Ophthalmology, Universi-ty of Michigan, W. K. Kellogg Eye Center, 1000 Wall Street, Ann Arbor, MI 48105. An Affirmative Action Employer.

INVERTEBRATE ZOOLOGY

Cornell University invites applications for a tenure-track assistant professor position in invertebrate zoology to begin 1 September 1986, or later. We are seeking an individual with a broad understanding of marine invertebrates and an interest in organismal function. Teaching responsibilities include, in alternate years, an undergradautocourse in invertebrate zoology, participation in an introductory marine science course, and an appropriate advanced course. An outstanding research program is expected. Applicants should send their curriculum vitae, a statement of teaching experience, reprints of recent publications, a statement of future research plans, and the names, addresses, and telephone numbers of three per-sons who have been requested by the candidate to send letters of recommendation to: Dr. F. Harvey Pough, Section of Ecology and Systematics, Corson Hall, Cornell University, Ithaca, NY 14853–2701. Dead-line for the receipt of applications is 7 March 1986. Cornell University is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.

POSITIONS OPEN

ADJUNCT INSTRUCTOR OF NATURAL SCI-ENCE-available for the 1986 to 1987 academic year only. The position involves teaching in a program inte-Single Section and the section of the biological and physical sciences for liberal arts majors. Preference will be given to those candidates with the Ph.D., a diversity of training, and demonstrated teaching experience. Send detailed curricu-lum vitae to: Director, Natural Science Program, Providence College, Providence, RI 02918.

BIO-MÉGA INC.

Bio-Méga is a young, dynamic enterprise committed to excellence in biotechnology and the health sciences. A subsidiary of Le Groupe SGF, one of Canada's leading holding companies, Bio-Méga recently moved into a new scientist-friendly laboratory in Laval of Greater Montreal

The continuing scientific development of Bio-Méga has created the need for FOUR KEY LEADERSHIP POSITIONS in bioengineering, immunodiagnostic R & D, microbiology, and cardiovascular pharmacology.

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- (6) Good language skills in English and French.

The successful candidates will be members of the research management group. They will have extensive responsibil-ities to design and direct R & D programs in their respective areas that enhance the reputation of their department and benefit the company. Bio-Méga offers attractive salaries and benefits, commensurate with skills and experience.

Please write in confidence, with full curriculum vitae, to: Jacques Roux, Director, Human Resources, Bio-Méga Inc., 2100, rue Cunard, Laval, Québec, Canada H7S 2G5.

UNIVERSITY OF HONG KONG LECTURERS IN PSYCHOLOGY

Applicants should possess a Ph.D. degree and have research and teaching experience in one of the following fields: social psychology and personality; or neuropsy-chology and perception. Familiarity with Hong Kong society is preferred. Teaching at both the undergraduate and postgraduate levels will be required. Annual salary (superannuable) is on an 11-point scale: HK\$160,980 to HK\$269,100 (US\$1 = HK\$7.80, equivalent as of 9 December 1985). Starting salary will depend on qualifi-cations and experience. At current rates, salaries tax will not exceed 17 percent of gross income. Housing benefits at a rental of 7½ percent of salary, children's education allowances, leave, and medical benefits are provided. Further particulars and application forms may be ob-Applicants should possess a Ph.D. degree and have auowances, leave, and medical benefits are provided. Further particulars and application forms may be ob-tained from: The Secretary General, Association of Commonwealth Universities (Appointments), 36 Gordon Square, London WC1H 0PF, England, or from the Appointments Unit, Secretary's Office, Uni-versity of Hong Kong, Hong Kong. Closes: 28 Febru-ary 1986.

NEURO-OPHTHALMOLOGIST—University Michigan, full-time faculty position, assistant, associate, or full professor level. Training in ophthalmology and fellowship in the neuro-ophthalmology required. Opportunity for clinical and laboratory research, resident and student teaching, clinical practice. Contact: Paul R. Lichter, M.D., Department of Ophthalmology, Uni-versity Hospital, W. K. Kellogg Eye Center 004, Ann Arbor, MI 48109. The University of Michigan is a Non-discriminatory/Affirmative Action Employer.

THREE OPHTHALMOLOGY SPECIALISTS-University of Michigan, full-time faculty positions, assist-ant, associate, or full professor level. Training in ophthalmology and fellowship in the subspecialties of glaucoma and ophthalmic pathology required. Opportunity for clinical and laboratory research, resident and student teaching, clinical practice. Contact: Paul R. Lichter, M.D., Department of Ophthalmology, University Hospital, W. K. Kellogg Eye Center 004, Ann Arbor, MI 48109. The University of Michigan is a Nondiscriminatory/Affirmative Action Employer.

Insect Biochemist

The Agricultural Research Division of American Cyanamid Company has an excellent career opportunity for a Ph.D. Biochemist with training in enzymology to work in Insecticide Discovery. Individual will conduct mode of action research on new compounds, examining metabolic and developmental target sites in insects.

Successful applicant will have a Ph.D. in biochemistry, preferably with research experience on invertebrates. Enzymology experience especially in metabolic, cuticular or endocrinological systems is required. Postdoctoral training is desirable.

American Cyanamid offers a competitive compensation and benefits package. For prompt and confidential consideration, forward your resume and salary history to the Employment Office.

CYANAMID

American Cyanamid Company Agricultural Research Division P.O. Box 400 Princeton, New Jersey 08540

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- routine safety reports as required for internal use or submission to regulatory authorities. Reviewing the medical literature relating to

safety issues concerning company products. Background should include a Pharm.D. or Ph.D. in a medically related field and experience in postmarketing

medically related field and experience in postmarketing surveillance or clinical research within the pharmaceutical industry. Some knowledge of clinical medicine is essential.

Your abilities and potential will be recognized with a competitive starting salary and benefits package. Our location offers a mild climate year round, access to some of the finest universities in the country, numerous cultural activities, and nearby recreational facilities. For prompt consideration, please forward your resume,

including salary history, to:

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Professional Placement Representative





Boston University Faculty Positions in Chemistry

As part of its \$100-million development in science and engineering, Boston University seeks applicants for 8-10 new and replacement chemistry faculty positions, to be filled within the next three years. At least three positions will be filled in September 1986. We have specific needs for assistant professors in analytical, inorganic, materials, polymer, and synthetic organic chemistry. However, we seek the highest qualified applicants across all ranks and areas of research. The department has just moved into a new \$20-million, 6-floor research complex, equipped with modern instrumentation and support facilities, including 400 MHz NMR, FTIR, Evans & Sutherland molecular modelling system, three dedicated VAX-11/750s, IBM 3090 Model 200 with vector processor, and convenient access to international communication networks. Aggressive startup laboratory and equipment allocations will be provided. Send resume and a brief statement of research interests, and have three letters of recommendation sent to:

Faculty Development Committee Department of Chemistry Boston University 590 Commonwealth Avenue Boston, Massachusetts 02215

Boston University is an affirmative action/equal opportunity employer.

TO XI COLO GIST

Lorillard, a leading manufacturer of tobacco products, has an immediate entry-level opening for a Toxicologist at our Greensboro, N.C. Research Center.

The successful candidate's responsibilities will include assisting in the training and supervision of personnel engaged in toxicity testing. This position will also involve the monitoring of studies, evaluation of reports, and protocol development for extramural toxicological testing.

Applicants should have a Ph.D. in Toxicology or Pharmacology. Experience with *in vivo* toxicity assessment and inhalation toxicology is also desirable.

Lorillard offers a comprehensive flexible benefit package, a competitive salary, and relocation. Qualified candidates should send their curriculum vitae with transcripts to: **T.B. Moring, Lorillard Research Center, P.O. Box 21688, Greensboro, NC 27420.**

orillard

an equal opportunity employer

INFORMATION SERVICES LIBRARIAN/ CHEMISTRY SPECIALIST, Science and Engineering Library, University of California, San Diego. Assistant Librarian, \$22,872 to \$29,256 or Associate Librarian, \$27,948 to \$40,248. Available immediately. Filing deadline: 14 March 1986. For full position description write: Lee Ann Swingle, Library, C-075-H6, University of California, San Diego, La Jolla, California 92093, or telephone: 619-452-3064.

HARVARD SCHOOL OF PUBLIC HEALTH invites applications from prospective MASTER'S AND DOCTORAL DEGREE CANDIDATES. Opportunities exist in: environmental science and physiology, epidemiology, biostatistics, cancer biology, health policy and management, international health, maternal and child health, nutrition, population sciences, toxicology, and tropical public health. For further information, contact: M. L. Licwinko, Director of Professional Development, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115. Telephone: 617-732-1036.

MICROBIOLOGIST

The Department of Biology, University of Alabama at Birmingham, invites applications for a tenure-track position starting September 1986. Applicants should provide evidence that they can develop a strong, independent research program in microbiology with preference given to applicants using molecular approaches in areas such as energy production or detoxification. The successful candidate will be expected to contribute to the graduate program and to teach undergraduate courses in microbiology. Send curriculum vitae, selected reprints, a brief outline of future research plans, and the names of three references by 15 March 1986, to: Search Committee, Department of Biology, University Station, Birmingham, AL 35294. The University of Alabama at Birmingham is an Affirmative Action/Equal Opportunity Employer, and welcomes applications from women and minority candidates.

MODELER: AQUATIC ECOSYSTEM-CONTAM-INANT DYNAMICS. Postdoctoral (or experienced master's level) modeling position with National Oceanographic Atmospheric Administration's Great Lakes Environmental Research Laboratory, Ann Arbor, Michigan. Ecosystem perspective, organic contaminant, and FOR-TRAN programming experience required. Position will be full-time temporary (up to 2 years) at GS-11 level (\$26,381 per year). For technical details contact: Dr. Thomas D. Fontaine; telephone: 313-668-2249. Submit Form 171 and detailed résumé (list publications, research experience, references, and education) to: Central Administrative Support Center—Personnel, 1747 Federal Building, 601 East 12th Street, Kansas City, MO 64106. Telephone: 816-374-5016. Applications must be postmarked no later than 21 February 1986. An Equal Opportunity Employer. U.S. citizenship required.

MOLECULAR BIOLOGY/GENETICS

The Center for Gene Research and Biotechnology along with the Agricultural Experiment Station and the Colleges of Agriculture, Forestry, and Science seek applicants for **THREE**, 12-month, tenure-track assistant professor positions available 1 July 1986. A Ph.D. degree is required and postdoctoral experience is strongly preferred. The successful applicants will be expected to develop vigorous, innovative research programs applying molecular/genetic techniques to the study of plant functions important to agriculture/forestry. Some examples include the study of: plant regeneration, segulation of gene expression, virology, host/parasite interaction, organelle functions, and carbon/nitrogen metabolism. The primary criterion will be a secondary consideration as determined by the expressed interest of the applicant or potential research interactions with Oregon State University (OSU) faculty. A teaching commitment in one's specialty will be required. Salary and research support will be competitive. Applicants must submit curriculum vitae, transcripts, publications, description of future research interests, and three letters of recommendation by 15 March 1986 to: Molecular Biology Search Committee, Agricultural Experiment Station, Oregon State University is an Afirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

MICROBIOLOGIST

The Department of Biology, University of Puerto Rico, is seeking individuals with research experience in microbiology with expertise in (i) microbial genetics, (ii) microbial immunology, or (iii) microbial physiology. The tenure-track position is available 1 July 1986. Priority will be given to individuals at the assistant professor level. Preference will be given to those candidates with strong credentials for, and commitment to, developing an independent research program. An interest in, and aptitude for, teaching undergraduate and graduate students is equally important. Fluency in Spanish is desirable, but not required.

Interested individuals should send curriculum vitae, a letter stating past, present, and future research interests, and have three letters of recommendation transmitted to: Dr. George V. Hillyer, Professor and Chairman, Department of Biology, University of Puerto Rico, Rio Piedras, Puerto Rico 00931.

MOLECULAR BIOLOGISTS

The Department of Biology, University of Puerto Rico, is seeking a molecular biologist with expertise in the genetics of eukaryores. The tenure-track position is available 1 July 1986. Priority will be given to individuals at the assistant professor level. Preference will be given to those candidates with strong credentials for, and commitment to, developing an independent research program. An interest in, and aptitude for, teaching undergraduate and graduate students is equally important. Fluency in Spanish is desirable, but not required. Interested individuals should send curriculum vitae, a letter stating past, present, and future research interests, and have three letters of recommendation transmitted to: Dr. George V. Hillyer, Professor and Chairman, Department of Biology, University of Puerto Rico, Rio Piedras, Puerto Rico 00931.

MOLECULAR BIOLOGY HORMONES AND GROWTH FACTORS

Individuals with a strong background in molecular biology are invited to apply for one research associate and two postdoctoral positions in an established molecular endocrinology laboratory. Projects include the study of the structure, function, and regulation of newly discovered members of the prolactin family of hormones, and pituitary growth factors. Applicants should send curriculum vitae, a brief description of their research interest, and three letters of reference to: Dr. H. G. Friesen, Professor and Head, Department of Physiology, University of Manitoba, 770 Bannatyne Avenue, Winnipeg, Canada MB, R3E 0W3. In accordance with Canadian immigration requirements, priority will be given to Canada nitizens and permanent residents in Canada.

PHARMACOLOGY AND TOXICOLOGY. Tenuretrack position at the assistant professor level starting July 1986. Applicants should possess a Ph.D. in pharmacology or toxicology, have a strong background in an area of basic research relevant to toxicology, and possess good communication skills. The successful applicant will be expected to develop an active research program, participate in undergraduate teaching, and assist in developing a graduate program in toxicology. Two years of postdoctoral experience preferred. Send curriculum vitae to: Dr. R. B. Philp, Chairman, Department of Pharmacology and Toxicology, University of Western Ontario, London, Ontario, Canada, N6A 5C1. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. An Equal Opportunity Employer.

PROTEIN CHEMISTRY HORMONES AND GROWTH FACTORS

Individuals with a strong background in protein chemistry, are invited to apply for one research associate and two postdoctoral positions in an established molecular endocrinology laboratory. Projects include the study of the structure, function, and regulation of newly discovered members of the prolactin family of hormones, and pituitary growth factors. Applicants should send curriculum vitae, a brief description of their research interest, and three letters of reference to: Dr. H. G. Friesen, Professor and Head, Department of Physiology, University of Manitoba, 770 Bannatyne Avenue, Winnipeg, Canada MB, R3E OW3. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents in Canada.

POSITIONS OPEN

MORPHOLOGIST: OHIO UNIVERSITY. The Department of Zoological and Biomedical Sciences seeks to fill a tenure-track position for a research-oriented assistant professor to begin 1 September 1986. The applicant must have a Ph.D. and postdoctoral experience, and be able to teach comparative anatomy and supervise the advising of premedical students. Send letters of application, curriculum vitae, description of current and future research plans, copies of representative publications, statement of teaching experience, and three letters of recommendation by 28 February 1986 to: Dr. Robert Hikida, Morphology Search Committee, Department of Zoological and Biomedical Sciences, Irvine Hall, Ohio Univerity, Athens, Ohio 45701. Telephone: 614-594-5816, extension 347.

Ohio University is an Affirmative Action/Equal Opportunity Employer.

NMR SPECIALIST

The College of Chemistry, University of California, Berkeley, invites applications for the position of nuclear magnetic resonance specialist. The successful candidate will join our NMR facility presently equipped with four CW and five FT instruments (180–500 MHz). The facility currently has two full-time employees. The candidate should have a Ph.D. in analytical or synthetic organic chemistry or equivalent experience, and at least 4 years of practical experience in the operation of FT-NMR spectrometers with Nicolet and Bruker data systems. The position requires proven ability to utilize complex NMR experiments to solve structural problems. The successful candidate will assist in the regular operation of the facility, with particular emphasis on application and development of complex or novel techniques with the user group of approximately 25 faculty and 200 graduate students and postdoctoral associates. The candidate will be expected to contribute to the training of the users. In order to maintain state-of-the-art knowledge, the candidate will be encouraged to devote part of his/her time to independent projects.

Candidates should submit curriculum vitae, including a list of publications, and three letters of reference to: Assistant Dean R. Myers, College of Chemistry, University of California, Berkeley, California 94720. The deadline for receipt of applications is 1 March 1986. Late applications will be considered until the position is filled. The University of California is an Equal Opportunity/

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

PATHOLOGISTS. The Department of Pathology at University of California, Los Angeles (UCLA) School of Medicine has positions available at the assistant professor level to start on, or before, 1 July 1986. Qualifications include an M.D. degree, Board-eligibility or certification in anatomic pathology, demonstrated research ability, and eligibility for California licensure. Individuals with specialized interests in pulmonary pathology or pediatric pathology will be favored, although candidates with other specialties will be given strong consideration. Duties will include assistance on the autopsy service, teaching undergraduate and graduate students, and residents and development of an independent research program. Applications including curriculum vitae, summary of research interests, and names and addresses of four references should be sent to: P. A. Cancilla, M.D., Chairman, Department of Pathology, UCLA School of Medicine, Los Angeles, CA 90024. UCLA is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.

M.D.—PHARMACOLOGIST is needed to participate in a new pediatrics leukemia research team in the Division of Pediatrics, University of Texas System Cancer Center, M. D. Anderson Hospital and Tumor Institute, Houston, Texas. Telephone or write for details to: Donald Pinkel, M.D., Professor of Pediatrics, 6723 Bertner Avenue, Houston, Texas 77030; telephone: 713-792-2592. We are an Equal Employment Opportunity/Affirmative Action Employer.

Ph.D. or POSTDOCTORAL RESPIRATORY TOXICOLOGIST, entry level. Experience required in the use of in vivo and in vitro techniques for assessing lung damage and repair. Experience desirable in conducting inhalation studies. Send résumé and publication list to: Dr. T. J. Logan, Manager, Ph.D. Recruiting, Respiratory Toxicologist Position, Procter and Gamble Company, P.O. Box 39175, Cincinnati, Ohio 45247. An Equal Opportunity Employer.

NATIONAL SCIENCE FOUNDATION Washington, D.C.

HEAD, POLAR SCIENCE SECTION

The Division of Polar Programs is seeking quali-fied applicants for the position of Head, Polar Science Section. The Section includes programs in glaciology, upper atmospheric physics, polar ocean sciences, polar earth sciences, polar meteorology, and polar biology and medicine. Ap-pointment to this Senior Executive Service position may be on a career or a two year limited term basis with a salary ranging from \$61,296 (ES-1) to \$68,700 (ES-4). Alternatively, assignment may be made under the provisions of the Intergovernmental Personnel Act.

Applicants must have a Ph.D. or equivalent professional experience in the physical, environmental or natural sciences; substantial research contributions and strong evidence of scholarship in the physical, environmental or natural sci-ences or innovative leadership in research administration; and ability to achieve organizational objectives through the supervision and management of subordinates. Individual selected must be able to pass the physical examination required for travel to Antarctica.

Applicants should contact Margaret Cademar-tori on (202) 357-7857 (hearing impaired indi-viduals may call TDD 202-357-7492) to request Announcement EPS 85-225 (career appointment), EPS 85-32S (limited term appointment) or EPS 85-42S (IPA) for complete qualification requirements and application procedures. Applications must be received by February 28, 1986.

EQUAL OPPORTUNITY EMPLOYER

MOLECULAR BIOLOGISTS

NEW ENGLAND BIOLABS

Postdoctoral positions are immediately available at New England Biolabs for two molecular biologists to join an active group cloning, sequencing and overexpressing restriction and modification aenes.

Applicants should be familiar with recombinant DNA procedures in procaryotes. Experience with gene manipulation, expression, sequencing, hybridization, mutagenesis and mapping would be helpful. Applicants should be willing to work as team members, to pursue new cloning projects and to take over projects that may already be in progress. Attendance at meetings, publication of research results and open communication with others are encouraged. Salaries and benefits are aenerous

Applicants should submit a curriculum vitae and the names of three references to:

> Personnel Director New England Biolabs 32 Tozer Rd Beverly, MA 01915



POSTDOCTORAL **FELLOWSHIPS**

Ideal North Carolina Location

BURROUGHS WELLCOME CO., an innovative pharmaceutical company in Research Triangle Park, NC, and having close research contact with three major universities, has immediate openings for two Postdoctoral Fellows in the followina areas

BIOCHEMISTRY (#1348)

Participate in a challenging investigation of the effects of combination anti-viral chemo-herapy. Studies of the combined inhibition of virus replication and how one agent effects the metabolism of the second agent should lead to a mechanism study with a purified enzyme. A Ph.D. with experience in some of these areas is required. (Mentor: T. Spector).

VIROLOGY (#1391)

Opportunity to perform biochemical and genetic experiments aimed at studying the mechanism of action of potential anti-viral drugs and to assist in physically mapping viral gene functions responsible for the susceptibility to drug inhibition by conventional methods of gene cloning, transfer and expression. Requires a Ph.D. in microbiology biochemistry, or a related disci-pline, with related research experience. Must be familiar with aspects of recombinant DNA tech-nology and have experience in the manipulation of cloning vectors to facilitate gene expression.

BURROUGHS WELLCOME CO. offers a comprehensive company - paid benefit package and a stimulating environment for scientific research. The Research Triangle Park area provides superior living at reasonable costs, a variety of recreational activities and moderate winters.

Qualified minority, female, veteran and handicapped individuals are encouraged to apply. Qualified individuals should submit curriculum vitae specifying position number to:



An Equal Opportunity/Affirmative Action Employer

PHARMACOLOGY RESEARCH

Ideal North Carolina Location

BURROUGHS WELLCOME CO., an innovative pharmaceutical company in Research Triangle Park, NC, and having close research contact with three major universities, has immediate openings in the following areas of the Pharmacology Department:

GENERAL PHARMACOLOGY - ASSISTANT SUPERVISOR (#1366)

To supervise general pharmacological studies relating to new drug development. Require-ments are an MS degree in Physiology/Pharmacology or BS degree with graduate level course(s) in Physiology/Pharmacology or equivalent experience/training. A good knowledge of and extensive practical experience (minimum of 6 years) in pharmacological procedures relevant to the areas of responsibility (CNS, analgesia and inflammation) is required. Good supervisory, communications (written and oral) and interpersonal skills are needed. Knowledge of consumption of the areas of responsibility of the pharmacological procedures relevant to the areas of responsibility (CNS, analgesia and inflammation) is required. Good of computer science, electronics, statistics, chemistry and biochemistry is highly desirable.

CARDIOVASCULAR RESEARCH — JR. RESEARCH PHARMACOLOGIST (#1215)

To assist in experimentation related to drug development. Requirements are a Bachelor's degree or equivalent in pharmacology, physiology or biochemistry plus 2 years relevant laboratory experience or MS in pharmacology, biochemistry or physiology with relevant laboratory experience. Must have experience in animal surgery and the use of physiologic recorders. Experience in analytical techniques as well as knowledge of **in vitro** techniques, electronics and computers would be advantageous.

BURROUGHS WELLCOME CO. offers a comprehensive company - paid benefit package and a stimulating environment for scientific research. The Research Triangle Park area provides superior living at reasonable costs, a variety of recreational activities and moderate winters. Qualified minority, female, veteran and handicapped individuals are encouraged to apply.

Qualified individuals should submit curriculum vitae specifying position number to:



NEUROETHOLOGY AND BEHAVIORAL GENETICS

The Department of Biology, University of Miami, is seeking to fill two tenure-track positions at the level of assistant or associate professor, to complement its grow ing program in behavior, ecology, and evolution. Position (i): NEUROETHOLOGIST working at the cellular level.

Position (ii): GENETICIST working in areas of devel opment or gene expression as they relate to behavior. Applicants should submit a brief statement of research

plans and interests, curriculum vitae, two reprints, and have three letters of reference sent to: **Dr. Peter Luykx**, Chairman, Search Committee, Department of Biology, University of Miami, Coral Gables, FL 33124. Deadline 14 February 1986.

An Equal Opportunity/Affirmative Action Employer

PHYSIOLOGIST—CLAREMONT COLLEGES

Assistant professor to teach mammalian physiology, an-other upper division course (open) and participate in introductory teaching to science and nonscience majors. Small liberal arts colleges. Research with undergraduates Sina norta and encouraged. Have résumé, statement of goals, and three reference letters sent to: Dr. Daniel Guthrie, Joint Science Department, The Claremont Colleges, Claremont, CA 91711. An Affirmative Ac-tion/Equal Opportunity Employer.

POSTDOCTORAL FELLOW/ASSOCIATE RE-SEARCH SCIENTIST in MOLECULAR IMMU-NOLOGY. Projects available include the study of immune complexes, complement and rheumatoid factor in autoimmune disease, the fine specificity of an autoimmune response, and seeking the molecular explanation for an autoimmune HLA restriction. Salaries competi-tive. Contact: John B. Harley, Roberta J. Jacobs, or Morris Reichlin, Arthritis and Immunology Pro-gram, Oklahoma Medical Research Foundation, 825 N.E. 13th Street, Oklahoma City, OK 73104; telephone: 405-271-7766.

POSITIONS OPEN

PATHÓLOGIST

Dynamac Corporation is a biomedical and environmental research firm with an immediate opening for a toxicologic pathologist at its Product Safety Assessment Division in Research Triangle Park, North Carolina A D.V.M., Ph.D. and/or Board-certification in veterinary pathology is required—1 to 3 years of industrial experience in toxicologic pathology is desirable. Dynamac Corporation offers competitive salaries and a fully paid employee benefits package. To apply, please send résumé in confidence to:

Dynamac Corporation P.O. Box 13706 Research Triangle Park, NC 27709-3706 Equal Opportunity Employer, MF.

POSTDOCTORAL FELLOW

M.D./Ph.D. needed to work with Julia W. Albright, Ph.D., on NIH grant. Applicant with strong background in immunochemistry preferred. Experience in tissue cul-ture techniques desirable. Laboratory dedicated to studies on aging of the immune system and in vitro analysis of interaction between parasites and cells. Stipend competitive. Contact: Dr. Julia Albright, Professor of Microbiology, The George Washington University, Medical Center, 2300 Eye Street, NW, Washington, DC 20037; telephone: 202-676-2909.

POSTDOCTORAL POSITION-Molecular biology of sodium channels: Positions available for multidis-ciplinary studies of sodium channel structure, mechanisms, and biosynthesis. Techniques used include protein purification and characterization, in vitro and in vivo biosynthesis using Xenopus oocytes, reconstitution of channels, and immunological characterization of both polyclonal and monoclonal antibodies. Send curriculum vitae and names of three references to: Dr. S. R. Levinson, Department of Physiology, C240, Univer-sity of Colorado School of Medicine, Denver, Colora-do 80262. Equal Opportunity/Affirmative Action Employ-

POSITIONS OPEN

PLANT BIOLOGIST

Kenyon College is seeking a botanist to teach plant physiology, plant biology and development in the core introductory course, and general biology laboratory. Excellence in teaching is required and research is encour-aged. Preference will be given to candidates with the Ph.D. degree.

Visiting instructor/assistant professor for a period of 2 years. Kenyon College is a private, 4-year liberal arts institution with a commitment to the sciences and the humanities. Applications should include curriculum vi-tae, undergraduate and graduate transcripts, and three letters of reference. Application materials should reach: Dr. Thomas Jegla, Chair, Search Committee, Biology Department, Kenyon College, Gambier, Ohio 43022, N. 7. Februare, 106 by 17 February 1986.

Kenyon College is an Equal Opportunity Employer that ncourages applications from all qualified individuals, including members of minority groups and women.

POSTDOCTORAL FELLOW/RESEARCH ASSO-CIATE beginning summer 1986, to study the regulation of mammalian collagenase gene expression in normal and diseased connective tissue. Experience in molecular genetics helpful, but not essential. Send curriculum vitae and names of three references to: Dr. Constance E. Brinckeroff, Department of Biochemistry, Dart-mouth Medical School, Hanover, New Hampshire 03756.

POSTDOCTORAL POSITION available immediately to study the biochemistry and biophysics of antenna function and reaction center photochemistry in the unique photosynthetic bacterium Heliobacterium chlorum [FEBS Lett. 182, 345 (1985)]. Techniques include preparation of membrane pigment-proteins, steady-state and time-resolved fluorescence spectroscopy, laser flash pho-tolysis, and ESR. Send a résumé and three letters of reference by 8 February to: Professor Robert Blankenship, Chemistry Department, Arizona State Universi-ty (ASU), Tempe, AZ 85287. ASU is an Affirmative Action/Equal Opportunity Employer.

Biotechnology

Repligen Corporation, a rapidly growing biotechnology company involved in the development of a variety of innovative peptide and protein products by recombinant DNA and conventional biochemical techniques, seeks qualified candidates for the following positions

Principal Investigators: Qualified individuals will have a Ph.D. or M.D. degree, with at least 5 years' post-doctoral experience in either protein chemistry or molecular biology. Successful candidates will possess an exceptional record of achievement and have proven program management skills

Research Scientists: Qualified individuals will possess a Ph.D. degree, with post-doctoral experience in either protein chemistry or molecular biology. Successful candidates will have proven records of research achievement and the motivation which will allow them to take advantage of the growth opportunities available at Repligen.

Research Assistants: M.S./B.S. level positions with at least two years' laboratory experience in the areas of protein chemistry or molecular biology. For highly motivated candidates these positions offer the opportunity to expand his or her technical expertise into virtually all areas of research technology

Repligen offers a competitive salary, excellent benefits, and equity participation. Submit cover letter, resume, and references to: Personnel Manager, Repligen Corporation, 101 Binney Street, Cambridge, MA 02142



THE UNIVERSITY OF ADELAIDE South Australia invites applications from both men and women, medical or nonmedical graduates, for appointment to the CENTENARY CHAIR OF OCCUPATIONAL AND ENVIRONMENTAL HEALTH

in the Department of Community Medicine. The centenary chair has been established as a second chair in the department with support from the South Australian Health Commission to commemorate the centenary of the University of Adelaide Medical School. It is a foundation chair and the position is available for immediate appointment.

position is available for immediate appointment. The new professor will be expected to provide academic leadership in teaching, postgraduate supervision, and research in occupational and environmental health which forms an important component of the new master of public health course to be introduced in 1986. The appointee will also be involved in the teaching of undergraduate medical students. SALARY is A\$57,036 per annum, plus a clinical loading of A\$10,198 per annum for clinically qualified medical graduates. Provision is also made for limited private practice. The position is tenurable and membership of the Superannuation Scheme for Australian Universities (SSAU) is obligatory.

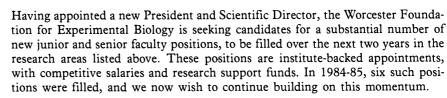
STATEMENTS setting out the conditions of appointment and providing details about the university are obtainable from the registrar of The University of Adelaide. Information about the Department of Community Medicine and the master of public health course may be obtained from: The chairman of the Department, Dr. R. M. Douglas, telephone: 618-224 5138

It is university policy to encourage women to apply for consideration for appointment to tenurable academic appointments. Holders of full-time tenured or tenurable academic appointments have the opportunity to take leave without pay or on a half-time basis for a specific period of up to 10 years where this is necessary for the care of children.

APPLICATIONS, IN DUPLICATE, Quoting reference number 4457, and giving full personal particulars (including whether candidates hold Australian permanent residency status), details of academic qualifications, and names and addresses of three referees should reach: The Senior Assistant Registrar (Personnel) at the University of Adelaide, GPO Box 498, Adelaide, South Australia, 5001, Telex UNIVAD AA89141, not later than 28 Edwards 1986. not later than 28 Fébruary 1986.

The University reserves the right to make enquiries of any person regarding any candidate's suitability for appointment, not to make an appointment, or to appoint by invitation

Developmental, Reproductive and Endocrine Biology/ Molecular and Cell Biology/ Neurobiology



Our criteria are intellectual creativity and a record of significant work; the quality of a candidate's training is also of importance. We wish to attract scientists whose collegial qualities are in keeping with the Worcester Foundation's tradition as an interactive community of scholars.

Applicants are asked to send a curriculum vitae, names of references and a synopsis of current and planned research; please do not submit reprints or manuscripts.

Send materials to codes DREB, MCB or NB (as appropriate), C/O Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545. We plan to make the first two-three of these appointments by September.

The Worcester Foundation for Experimental Biology is an Affirmative Action/Equal Opportunity Employer.

Faculty and Research Positions at Boston University



1944

In a major expansion of the Physics Department, twelve new faculty positions over the next five years and several research positions have been created at Boston University. The physical plant, computation facility, machine, assembly, and electronics shops are being significantly upgraded to support the increased research activity. The main goal of the program is to develop a new center of excellence in the fields of experimental and theoretical particle physics. Positions are also available in condensed matter theory, biophysics, low temperature experiment, and intermediate energy physics to enhance present strengths of the Department.

Applications are invited for these faculty positions and postdoctoral research appointments. The criteria for the choice of new faculty will be excellence and the promise of quality work in the forefront of research, as well as the ability to attract high quality graduate students. Inquiries and applications should be addressed to the Chairman of the Physics Department, Boston University, 590 Commonwealth Avenue, Boston, MA 02215.

Boston University is an equal opportunity institution.

PLANT GENETICIST/MOLECULAR BIOLO-GIST. Tenure-track position, assistant professor, starting September 1986. Ph.D. with broad knowledge in plant biology. Experience in either plant somatic cell genetics, plant molecular biology, or plant tissue culture desired. Postdoctoral work preferred. Will be expected to develop courses in area of expertise, assist in introductory courses, conduct an active research program, and seek extramural funding. Requires a strong commitment to a broad liberal arts education. Salary competitive. Applications close 17 February 1986. Submit resumé, three letters of recommendation, and official transcripts to: Dr. G. S. Trelawny, Head, Department of Biology, James Madison University, Harrisonburg, Virginia 22807.

James Madison University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

Position currently available for a **POSTDOCTORAL FELLOW** in behavioral teratology. Ph.D. and experience in psychology/pharmacology an asset. Applicant will participate in studies of effect of alcohol and drugs on reproductive function and behavioral teratology. Salary commensurate with experience. Send résumé to:

Dr. Ernest Abel Wayne State University 275 East Hancock Detroit, MI 48201

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



Allegheny Singer Research Institute-POSTDOC-TORAL FELLOW. One postdoctoral fellow to study cardiovascular physiology in an established laboratory. The Ph.D. must have 1 to 3 years of postgraduate experience. Background in biochemistry and metabolism helpful, experience with isolated perfused working heart, cardiomyocyte isolation and culture, electrophysiology, and a knowledge of modern laboratory methods and equipment is desirable. Salary (\$20,000 to \$25,000 per year), commensurate with experience. Send curriculum vitae and names of three references to: David E. Cole man, Employment Manager, ALLEGHENY GEN-ERAL HOSPITAL, 320 East North Avenue, Pittsburgh, PA 15212. An Equal Opportunity Employer.

POSTDOCTORAL OPPORTUNITIES IN BIOLOGY INDIANA UNIVERSITY—BLOOMINGTON

The Department of Biology and the Institute for Molecular and Cellular Biology regularly have openings for postdoctoral fellows to work with faculty on externally funded research projects and to teach within the department. The department and the institute have strong programs in genetics, microbiology, molecular, cellular and developmental biology, plant sciences, and organismal ecological, and evolutionary biology. Individuals wishing to have more information about these opportunities, or to apply for positions which may become available, should write to: Postdoctoral Opportunities, Department of Biology, Indian University, Bloomington, IN 47405. Applicants should include a résumé, a list of current publications, and the names, addresses, and telephone numbers of their references. Indiana University is an Affirmative Action/Equal Opportunity Employer.

NIH POSTDOCTORAL POSITION IN NEU-ROENDOCRINOLOGY available immediately to study central nervous regulation of gonadotropin secretion. Emphasis on neurochemical regulation of LH and prolactin secretion using electrophysiological and pushpull cannula methods coupled with HPLC measurements to detect how changes in neurotransmitter signal input activates or inhibits LHRH and Pr1 release. Contemporary molecular methods to evaluate steroid modulation of neuronal nuclear activity are being implemented. Individuals with knowledge in molecular methods are particularly invited to apply. U.S. citizenship or permanent visas required. Send curriculum vitae and names of three references to: Dr. Charles A. Barraclough, Department of Physiology, School of Medicine, University of Maryland, Baltimore, MD 21201. POSTDOCTORAL POSITIONS available for recent Ph.D.'s to participate in an active research program on the regulation of DNA repair in human cells. Current research efforts focus on the use of monoclonal antibody and recombinant DNA technology for molecular and genetic studies of DNA repair in normal human cells and in cells from cancer-prone individuals. Submit curriculum vitae and names of two references to: Dr. Michael Sirover, Fels Research Institute, Temple University School of Medicine, 3420 North Broad Street, Philadelphia, PA 19140. Equal Opportunity Employer.

POSTDOCTORAL POSITION available for 1 to 2 years starting February 1986 to study details of DNA conformation and its dependence upon various environmental conditions. Ph.D. or equivalent degree required. Experience in physical-chemical techniques including NMR desirable. Send curriculum vitae and names of three references to:

Dr. Burt G. Feuerstein, Department of Laboratory Medicine, University of California, San Francisco, San Francisco, CA 94143.

POSTDOCTORAL POSITION available for studies of muscle gene regulation in *Drosophila*. Current work involves studies on promoter and alternate splicing function in transformed flies and in cell free systems. Preference will be given to candidates with experience in molecular biology and recombinant DNA. Send curriculum vitae to: **Dr. Robert Storti**, **Department of Biochemistry**, **University of Illinois at Chicago**, **College of Medicine**, **1853 West Polk Street**, **Chicago**, **IL 60612**.

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

POSTDOCTORAL POSITION

Research position available immediately to conduct studies on opioid peptide precursors and their gene expression in the testis and other reproductive tissues. Research will involve molecular cloning, mRNA, and peptide analysis. A background in biochemistry/molecular biology and/or reproductive biology desirable. Send curriculum vitae and the names of three references to: Dr. Daniel Kilpatrick, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.

An Equal Opportunity/Affirmative Action Employer, M/F/H

POSTDOCTORAL POSITIONS—To study the biosynthesis of the mitochondrial glutaminase or the regulation of its expression in primary cultures of rat renal proximal tubular epithelial cells. Experience in cell culture and/or recombinant DNA techniques preferred. Send curriculum vitae and three letters of reference to: Dr. Norman P. Curthoys, Department of Microbiology, Biochemistry and Molecular Biology, University of Pittsburgh School of Medicine, Pittsburgh PA 15261.

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION

Research position available immediately to study the structure and function of the guanine nucleotide binding proteins involved in hormone receptor coupling. Applicant should have a biochemistry background with a degree in biochemistry, pharmacology, cell biology, or neurobiology. Send curriculum vitae and three reference letters to: Dr. John Hildebrandt, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL RESEARCH ASSOCIATE/ BROOKHAVEN NATIONAL LABORATORY. Position available for recent doctorate to work on project to develop heavy atom cluster reagents for specific labeling of biological molecules for use with the Scanning Transmission Electron Microscope (STEM, NIH Biotechnology Resource). Experience in biochemistry desirable.

Applicants should submit curriculum vitae, description of research and career interests, and names of three references to: Dr. Joseph S. Wall, Biology Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, L.I., New York 11973. Equal Opportunity Employer, M/F.

POSITIONS OPEN

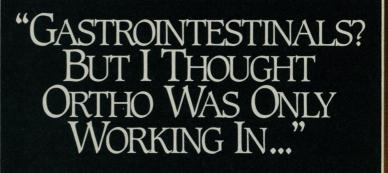
POSTDOCTORAL AND PREDOCTORAL OP-PORTUNITIES IN ENVIRONMENTAL HEALTH SCIENCES AT UNIVERSITY OF CAL-IFORNIA, LOS ANGELES (UCLA). Funded preand postdoctoral positions are available immediately for studies in the following areas: (i) evaluation of risks due to chemical contaminants in wastewater purified for potable reuse (research in separations, GC/MS analysis and bioassay methodologies); (ii) evaluation of ozonation for treatment of ground waters (efficacy and mechanistic studies centering on synthetic organics; GC/MS studies of by-products); and (iii) evaluation of environmental impacts of rapid industrialization of the U.S.-Mexican border, with emphasis on hazardous waste transport and disposal. (Applicants with facility in Spanish are encouraged.) Predoctoral candidates may pursue M.S., Ph.D., or professional D.Env. degree with internship. Applications are encouraged immediately by telephone or mail: William G. Glaze, School of Public Health, UCLA, Los Angeles, CA 90024; telephone 213-206-1278. UCLA is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority groups.

TWO POSTDOCTORAL RESEARCH ASSO-CIATES and a research specialist to work on the development of microorganisms for enhanced degradation of xenobiotic compounds. Work involves characterization of pseudomonas promoters and DNA sequencing of 2,4,5,-T degradative genes. Must have experience in molecular biological techniques such as northern hybridization; DNA sequencing, and so forth. Work also involves ecological risks associated with release of these organisms in conjunction with an established interdisciplinary research group at Environmental Protection Agency (EPA). Work will be conducted at EPA research laboratories in Cincinnati, Ohio, and in Gulf Breeze, Florida, under the direction of A. M. Chakrabarty under a 3-year contract. Please send a copy of your résumé to: Mr. Kenneth E. Johnson, University of Illinois at Chicago, Department of Microbiology/Immunology E-703 MSA, 835 South Wolcott, Chicago, IL 60612. The University of Illinois is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE—Position available immediately for research on stress, sympathetic nervous system function, and experimental hypertension. Send curriculum vitae and names of three references to: Dr. Richard McCarty, Department of Psychology, 102 Gilmer Hall, University of Virginia, Charlottesville, VA 22903, telephone: 804-924-0679.

RESEARCH ASSOCIATE-PLASMA PHYSICS: to provide theoretical analyses necessary for strong support of selected experimental programs at the Naval Research Laboratory and to carry out fundamental theoretical and numerical studies of the stability and radiation properties of intense charged particles and laser beams propagating in vacuum or in plasmas. To work on theory and design of quasi-optical gyrotrons and to direct research. Ph.D. in physics required, 2 years of experience in the position or 2 years postdoctoral experience in theory, computational modeling and design of quasi-optical gyrotrons and free electron lasers. Experience with VECTOR computers. Forty hours per week; \$32,500 per annum. If interested, please send résumé to: **Box 3, SCIENCE**.

VERTEBRATE ECOLOGIST. The Biology Department at Rutgers University-Camden is seeking an outstanding vertebrate ecologist for a tenure-track position (assistant professor level) beginning 1 July 1986. Applicants will be expected to focus their research in the Pinelands National Reserve (New Jersey Pine Barrens). The successful applicant has the potential of being awards ed a Henry Rutgers Research Fellowship which allows for a 50 percent reduction in teaching, plus research support for the initial 2 years of the appointment. A Ph.D. is required and postdoctoral experience expected. Teaching responsibilities include participation in introductory and advanced undergraduate biology courses and graduate courses in applicants' area of training and research. Applicants should submit curriculum vitae, summary of research interests and achievements, and three letters of recommendation before 28 February 1986 to: Dr. H. Lee, Chairman, Biology Department, Rutgers University, Camden, NJ 08102. Rutgers, The State University of New Jersey, is an Equal Opportunity/ Affirmative Action Employer.



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RESEARCH ASSOCIATE position available starting immediately to study the structure and hormonal regulation of phosphoprotein phosphatases. Projects include conventional protein purification and enzymological studies, as well as cloning and expression of cDNAs encoding protein phosphatases. Experience in protein purification and/or basic molecular biology is desirable. Please send curriculum vitae and have three letters of recommendation forwarded to: Dr. Anna DePaoli-Roach, Indiana University School of Medicine, Department of Biochemistry, 635 Barnhill Drive, Indianapolis, Indiana 46223, Telephone: 317-264-2931. Indiana University is an Equal Opportunity Employer, M/F.

RESEARCH ASSOCIATE IN TUMOR IMMUNOLOGY

The Harrington Cancer Center, Amarillo, Texas, wishes to recruit two positions for a research group in tumor immunology which will focus on the biology of B cell lymphomas. Candidates should possess a Ph.D. or M.D. degree and several years of postdoctoral experience in areas of monoclonal antibodies, recombinant DNA procedures, histocompatibility antigens, or related fields of investigation. Send curriculum vitae to: Dr. John Morrow, Department of Biochemistry, Texas Tech University Health Sciences Center, Lubbock, TX 79430.

SCIENTIFIC RESEARCH INSTITUTE is seeking candidates for a RESEARCH POSITION to begin early 1986. The successful applicant will conduct analytical and preparative protein chemistry, peptide, and protein purification and characterization. Candidates should have a B.S. or M.S. in protein chemistry with at least 3 years of laboratory experience with HPLC of peptides, proteins, amino acids, and SDS-PAGE. Knowledge of protein sequencing and amino acid analysis is preferred. Interested applicants should forward résumé with three letters of reference to:

Personnel Manager W. ALTON JONES CELL SCIENCE CENTER, 10 Old Barn Road Lake Placid, New York 12946 Please refer to Job Order CR510 An Affirmative Action/Equal Opportunity Employer

RESEARCH NEUROSCIENTIST

A position is available for a Ph.D. with 1 to 4 years of postdoctoral experience in an area relevant to cerebrovascular disease with expertise in autoradiography. The person selected will hold a joint academic appointment in a Basic Science Department and Clinical Neurological Sciences and is expected to obtain independent research funding. Submit curriculum vitae and three letters of reference to: Dr. V. C. Hachinski, Chairman, Division of Cerebrovascular Research, University of Western Ontario, London, Ontario, Canada N6A 5A5.

SCIENCE POLICY ANALYST

Available immediately: Challenging position in Washington, DC for recent Ph.D. in materials science or related area. Project involves an assessment of future opportunities for use of advanced engineering materials. Broad background and excellent command of written and spoken English required. Send curriculum vitae and three writing samples to: Denise DeSanctis, Personnel Specialist, Office of Technology Assessment, U.S. Congress, Washington, DC 20510. Reference Job Number EM1. Equal Opportunity Employer.

TOXICOLOGIST sought at level of FULL PROFES-SOR to expand research in toxicology in the Department of Pharmacology. Must be able to build a strong research program supported by external funds and to raise funds to support a graduate training program in toxicology. Must have a national and international reputation as an outstanding scientist with strong credentials in research and teaching, and evidence of leadership ability. Some research experience in metabolic formation of reactive intermediates preferred. Send résumé by 15 February to:

Dr. John B. Schenkman Department of Pharmacology University of Connecticut Health Center Farmington, CT 06032

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POSITIONS OPEN

RESEARCH ASSOCIATE

Nontenure-track position available to qualified applicant who possesses Ph.D. in biochemistry to study biochemical mechanisms of pulmonary emphysema and to develop specific sensitive methods to detect lung protein degradation by oxidants. Must have broad experience in chemical and enzymatic protein modification, tissue culture, and animal models of tissue injury. Salary: \$23,000. Forward résumé to:

> Tennessee Job Service 1295 Poplar Avenue Memphis, Tennessee 38104 Attention: Jack Hilzheim

RESEARCH ASSOCIATE position available immediately to study effects of hyperthermia on cytoskeleton and cellular calcium. Ph.D. required. Salary: \$19,000 to \$21,000. Send curriculum vitae and names of three references to: Ronald A. Coss, Ph.D., Department of Radiation Therapy and Nuclear Medicine, Thomas Jefferson University, 1015 Walnut Street, Philadelphia, PA 19107.

Thomas Jefferson University is an Affirmative Action/ Equal Opportunity Employer.

VICE CHANCELLOR FOR ACADEMIC AFFAIRS

Nominations and applications are invited for this position at the University of Illinois at Urbana-Champaign. The vice chancellor is the chief academic officer, reporting to the chancellor, and serves as chief executive officer in the absence of the chancellor. The vice chancellor is also the chief academic personnel and budgetary officer for the campus. The vice chancellor for academic affairs should have: broad interest in teaching and scholarship with a clear understanding of the missions of a comprehensive public university; record of achievement at the department level or higher in promoting and maintaining scholarly and educational excellence, and in attracting and retaining first-rate faculty members; demonstrated ability as a scholar and teacher; evidence of leadership ability in administration; familiarity with the operation of an institution comparable with the University of Illinois at Urbana-Champaign. Salary open. Available 21 August 1986. Nominations and applications should be submitted by 28 February 1986, to: Norton M. Bedford, Chair, Search Committee to Nominate Champaign, Post Office Box 5020, Station A, Champaign, Illinois 61820–90230; telephone: 217-333-3688. An Afirmative Action/ Equal Opportunity Employer.

VICE CHANCELLOR FOR RESEARCH AND DEAN OF THE GRADUATE COLLEGE

Nominations and applications are invited for this position at the University of Illinois at Urbana-Champaign. This official is one of four vice chancellors reporting to the chancellor and is a key campus-level academic administrator. The vice chancellor and dean should have a commitment to excellence in research, scholarship, and graduate education in all areas of a leading, comprehensive university. He/she should have the following qualities: leadership ability and success in working with agencies which support research, both within and outside the University; ability to work with administrative units and faculty to maintain and strengthen the University of Illinois at Urbana-Champaign as a major center of the highest quality graduate education and research; and ability as a scholar and teacher, with experience in supervising Ph.D. theses. Salary open. Available 21 August 1986. Nominations and applications submitted by 28 February 1986 to: R. L. Switzer, Chair, Search Committee to Nominate Candidates for Vice Chancellor for Research and Dean of the Graduate College, c/o Office of the Chancellor, University of Illinois at Urbana-Champaign, Swanlund Building, 601 East John Street, Champaign, Illinois 61820, telephone: 217-333-0574. Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

STAFF RADIATION ONCOLOGIST—COLUM-BIA UNIVERSITY COLLEGE OF PHYSICIANS AND SURGEONS invites applications for faculty position at the instructor or assistant professor level. Responsibilities include: patient care, teaching, and research. Requirements: New York State (NYS) Medical license and Board-certification in therapeutic radiology; narcotics license desirable. Send curriculum vitae to: James D. Cox, M.D., Radiation Oncology, 622 West 168 Street, New York, NY 10032. Columbia University is an Affirmative Action/Equal Opportunity Employer.

VICE PRESIDENT OR VICE PROVOST FOR RESEARCH University of Rochester

Senior Officer to work with faculty, chairmen of departments, deans, and others to enhance the opportunities for research and scholarly studies at the University of Rochester. Substantial faculty and research experience and advanced degree required. Will work closely with provost and report to the Office of the President (president, provost, executive vice president).

The University of Rochester is a private institution of modest size and high quality. Its seven schools and colleges include about 1100 fulltime faculty and 6800 students, 2300 of them graduate students. An annual budget of \$350 million is supported by an endowment of almost \$600 million. The volume of sponsored research is about \$85 million a year.

Nominations and applications should be addressed to: Mr. Kenneth F. Wood, Office of the President, University of Rochester, Rochester, NY 14627. Equal Opportunity Employer, (M/F)

VISITING SCIENTIST positions are available for new and established Ph.D.'s and/or M.D.'s in the areas of cell and molecular biology. Some experience in either area is desirable, but not essential. Appointments will be made for at least 2 years at an annual salary up to \$25,000, depending on qualifications and experience. Interested applicants should send curriculum vitae and three names of reference to: Personnel Manager, W. ALTON JONES CELL SCIENCE CENTER, 10 Old Barn Road, Lake Placid, New York 12946. Please refer to Job Order VS-8508.

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MEETING

PUBLIC MEETING

The National Research Council and the Institute of Medicine's Committee on the Use of Laboratory Animals in Biomedical and Behavioral Research will sponsor a public meeting to gather information pertinent to a study on public concerns about animal use and care, scientific and technical developments affecting animal use, and regulations and guidelines for animal use. The meeting, in the: National Academy of Sciences auditorium, 2100 C Street, NW, begins at 8:30 a.m., 11 February 1986. For further information, call: Frances Walton, telephone: 202-334-2612.

GRANTS

AMERICAN MUSEUM OF NATURAL HISTORY

The American Museum of Natural History is accepting applications for the **Theodore Roosevelt Memorial Fund** and the **Lerner-Gray Fund for Marine Research**. Both funds support advanced graduate students and postdoctoral investigators who are commencing their careers in the fields of zoology or paleontology. The Roosevelt Fund is restricted to North American fauna and applications must be postmarked by 15 February; the Lerner-Gray Fund supports research in marine zoology, exclusive of botany, and applications must be postmarked by 15 March. Request information booklet and application from: OFFICE OF GRANTS AND FEL-LOWSHIPS, AMERICAN MUSEUM OF NATU-RAL HISTORY, Central Park West at 79th Street, New York, New York 10024.

Applications Scientists

HP Genenchem is a joint venture formed by Hewlett-Packard and Genentech. We are an innovative company designing solutions to meet the needs of biotechnology.

Exciting new positions are available for Applications Scientists to investigate and develop bioscience applications of liquid chromatography, electrophoresis and automated biochemistry instrumentation. You will investigate opportunities for new instruments and accessories, LC columns, applications software, guaranteed analyses and related items in these areas. You will work closely with R&D engineers to define and develop new hardware and software, and with marketing professionals to develop product applications.

Successful candidates will have a doctorate in biochemistry or a closely related area, user experience in appropriate instrument/application field and strong verbal and written communications skills.

HP Genenchem offers an exciting start-up environment with growth potential, combined with the strength of Hewlett-Packard and Genentech resources. Inquire today by submitting your resume and a statement of interest to: **Applications Group Manager, HP Genenchem, 460 Point San Bruno Bivd., South San Francisco, CA 94080.** We are an Equal Opportunity/Affirmative Action Employer.



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POSTDOCTORAL POSITION SECTION ON VIRUSES AND CELLULAR BIOLOGY NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT NATIONAL INSTITUTES OF HEALTH

Applications are invited for a postdoctoral position (Ph.D. or M.D.) which will be available beginning September, 1986. Within the broad area of developmental biology, this laboratory studies mechanisms of viral and cell DNA replication, as well as mutagenesis. *In vitro* DNA replication systems are used extensively.

A background in molecular biology or biochemistry is required, and preference will be given to candidates with experience in nucleic acid and enzyme chemistry. Excellent facilities and research support are available. Salary will be commensurate with experience and qualifications.

Please send a curriculum vitae, the names of three (3) references, and a brief summary of research accomplishments and goals to:

Dr. Kathleen Dixon, Section on Viruses and Cellular Biology, Building 6, Room 1A15, NICHD, NIH Bethesda, MD 20892 NIH IS AN EQUAL OPPORTUNITY EMPLOYER

ANALYTICAL BIOCHEMISTRY BS/MS

The Pharmaceutical Research and Development Division of **The Upjohn Company**, located in Kalamazoo, Michigan, has an opening for a research associate in the Lipids Analytical Chemistry and Flourescence Spectroscopy Research Program. This laboratory is studying the role of lipid metabolism in various disease states including myocardial ischemia, alcoholism and atherosclerosis.

Qualified candidates will have a B.S. degree in Chemistry, Biochemistry, Biophysics or a related discipline or an M.S. in a related area. The position requires extensive instrumentation background in high performance and gas (capillary) chromotography including maintenance (non-electrical) of the instruments. Lipids and flourescence backgrounds are desirable.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a mix of excellent cultural, educational and recreational pursuits including numerous lakes and a fourseason climate. Upjohn offers a very competitive salary, commensurate with experience, and a comprehensive benefits program.

For confidential consideration, please call from outside of Michigan toll-free 1-800-253-8600 and ask for extension 3-6767; or call from Michigan collect 616-323-6767 to request an employment application be sent to you immediately. Please refer to ad number 18739-A when calling.



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SYMPOSIUM

BIOCHEMICAL ENDOCRINOLOGY SYMPO-SIUM. The eighth annual University of California-Riverside Nichols Institute Symposium on Cellular and Molecular Endocrinology will be held Friday, 28 March and Saturday, 29 March 1986 on the University of California-Riverside campus.

The meeting will have four 3-hour sessions devoted to the topics of (i) hormonal regulation of gene expression, (ii) vitamin D/nutrition, (iii) molecular aspects of neur-oendocrinology, and (iv) endocrinology of hypertension. For registration and further information, please write: Dr. Anthony W. Norman, Program Director, Endocrinology Symposium, Department of Biochemistry, University of California, Riverside, CA 92521; tele-phone: 714-787-4777.

SATELLITE SYMPOSIUM OF THE XXXTH IN-TERNATIONAL CONGRESS OF PHYSIOLOGY (IUPS). The Current Status of Peripheral Nerve Regen-eration—Edmonton, Canada, 20 to 23 July 1986. (Information: Dr. Tessa Gordon, Department of Pharmacology, University of Alberta, Edmonton, Alberta, Canada T6G 2H7; telephone: 403-432-2423.

ANNOUNCEMENT

ANNOUNCEMENT: Toxicology Pathology Asso-ciates is pleased to announce the publication of "A Color Atlas of Hematopoietic Pathology of Mice," authored by Charles H. Frith, D.V.M., Ph.D., Paul K. Pattengale, M.D., and Jerrold M. Ward, D.V.M., Ph.D. The book is hardbound and contains more than 100 color photomi-crographs. Price is \$55.00 dollars plus \$4.00 for ship-ping within the United Stress and \$8.00 for ship-ping within the United Stress and \$8.00 for shipping within the United States and \$8.00 for shipping outside of the United States. Money must accompany order. Please remit money and order to: Toxicology Pathology Associates, 1102 Briar Creek Road, Little Rock, Arkansas 72211.

TRAINING PROGRAM

POSTDOCTORAL TRAINING PROGRAM IN MICROBIOLOGY AND IMMUNOLOGY

This NIH supported program provides training for careers in research and teaching in microbiology and immunology. Applicants should have a Ph.D., M.D., minimology. Applicants stolid nave a PhD, M.D., D.V.M., or equivalent degree. Areas of interdisciplinary research include bacterial physiology, biochemistry, cell wall growth and assembly, genetics of resistance to β -lactam antibiotics; genetics of bacterial differentiation; Candida pathogenicity, morphogenesis, antigenic struc-ture and immunosuppression; molecular approaches to analyze effects of DNA tumor viruses on the metabolism and growth of host cells; the nature of immunoreg-ulatory cell circuits; and the immunology of host parasite relationship of salmonella and legionella. Candidates must be U.S. citizens or permanent residents. Please address letters of inquiry and applications (consisting of curriculum vitae and the names of at least three references) to: Chairman, Department of Microbiology and Immunology, Temple University School of Medicine, Philadelphia, PA 19140. Temple University is an Affirmative Action/Equal Opportunity Employer.

AWARDS

AMERICAN FOUNDATION FOR AIDS RESEARCH AWARDS APPLICATIONS INVITED

The American Foundation for AIDS Research (Am-FAR) invites applications from qualified investigators for research awards in biomedical and social sciences relevant research awards in biomedical and social sciences relevant to AIDS. Awards will be granted up to a maximum of \$50,000. Proposals to supplement projects already fund-ed from other sources are discouraged. For-profit corpo-rations are ineligible for this cycle of funding. Awards will be made in April 1986 upon peer-review evaluation of applications received at the Foundation office prior to 26 February 1986 at 5:00 p.m. PST. Letters of request for necessary AmFAR application forms are to be ad-dressed to: American Foundation for AIDS Research. derssed to: American Foundation for AIDS Research, Grants Office, 9601 Wilshire Boulevard, Mezzanine, Los Angeles, CA 90210.

AWARDS

AMERICAN FOUNDATION FOR AIDS RESEARCH APPLICATIONS INVITED FOR INFORMATION EXCHANGE AWARDS

The American Foundation for AIDS Research (Am-FAR) invites application by qualified investigators for short-term fellowships to facilitate training and exchange of scientific information relevant to AIDS. The maximum award is U.S. \$5000. Non-U.S. applicants are eligible for visits to U.S. laboratories only. Personnel of for-profit corporations are ineligible for this cycle of funding. Awards will be made in April 1986 upon peerreview evaluation of proposals received at the Founda-tion's office prior to 26 February 1986 at 5:00 p.m. PST. Letters of request for necessary AmFAR application forms are to be addressed to: American Foundation for AIDS Research, Grants Office, 9601 Wilshire Boule-vard, Mezzanine, Los Angeles, CA 90210.

PROGRAM

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a doctor of optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: Ph.D.-O.D. Program Director, Admissions Office, The New England College of Optometry, Room 15, 424 Bea-con Street, Boston, MA 02115.

FELLOWSHIPS

UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA) ENVIRONMENTAL SCIENCE AND ENGINEERING FELLOWSHIPS AND ASSIS-TANTSHIPS. Funded positions are available immedi-ately leading to the doctor of environmental science and engineering (D.Env.) degree or the Ph.D. in environ-mental and occupational health sciences. The D.Env. typically includes 2 years of course work and research at UCLA, plus a funded 18- to 24-month internship in industry or government. The Ph.D. is more focused; both degrees require a dissertation. Research includes risk assessment methodologies; ground-water monitor-ing and treatment; analysis of policy options with regard to toxics; and environmental impacts of developing countries. For information write to: William H. Glaze, School of Public Health, UCLA, Los Angeles, CA 90024 or telephone: 213-206-1278. UCLA is an Event Octaver and the environment Action Eventored and Equal Opportunity/Affirmative Action Employer, and en-courages applications from women and minority groups.

SIX POSTDOCTORAL FELLOWSHIP positions are available in the fall of 1986 for research in estuarine lagoon and nearshore continental shelf waters. Research areas include physical oceanography, macroalgal botany, invertebrate larval biology, zooplankton biology, inverte-brate reproduction and development, and fish ecology and behavior. Deadline for application is 1 April 1986. Request information brochure and application packet from:

> Dr. Kevin J. Eckelbarger Postdoctoral Program Harbor Branch Institution, Inc. R.R. 1, Box 196-A Fort Pierce, Florida 33450 An Equal Opportunity Employer

POSTDOCTORAL FELLOWSHIPS-PE-DIATRIC INFECTIOUS DISEASE, spon-sored by the NIH. Investigations on natural history of herpesviruses in man, perinatal infec-tions, antiviral studies, pneumococcal and group B streptococcal studies, diagnostic virology im-munogenetics, and basic virology available. Training geared for academic career. Degrees required: M.D. with pediatric subspecialty or Ph.D. Positions available immediately through June 1986. Send curriculum vitae to: Charles Alford, M.D., Department of Pediatrics, Uni-versity of Alabama at Birmingham, Medical Center, University Station, Birmingham, Ala-bama 35294; telephone: 205-934-2441.

FELLOWSHIPS

DREXEL FELLOWSHIPS IN BIOMEDICAL EN-GINEERING AND SCIENCE. These are supported by the Calhoun Endowment. Students can specialize in the following areas: biomedical imaging and signal proc-essing; biomedical science; biomaterials, biomedical systems and controls; cardiovascular dynamics; biomedical computer applications; diagnostic ultrasound; heart as-sist devices; and sensors. Each fellowship provides a minimum of \$8,500 tax-free stipend for a 12-month appointment, plus waiver of tuition and fees beginning fall 1986. Deadline for completed application: 25 February 1986. For application and information about this and Biomedical Engineering and Science Institute, Drexel University, Philadelphia, PA 19104.

INTERNATIONAL CANCER RESEARCH FELLOWSHIP

The Hayashibara and Mutual Aid Fund, a non-profit making organization within the Hayashibara Group announces a fellowship program. Two awards will be made annually. Fellowship will be taken up at the newly opened Fujisaki Cell Center, which is devoted for the basic and applied research related to the problems in human cancer. The fellowship is normally made for 1 year and is renewable for up to 5 years. The fellowship will be expected to commence within 6 months of the announcement of the awards. The awards are for high quality research work in one of the three categories described below.

- Fundamental Leukemia-Lymphoma Research,
- Cytokine-Lymphokine Research, Hematopoietic Cell Cultures. 2) 3)

Qualified person who has a Ph.D., an M.D., or equiva-lent qualifications will be awarded on merit to suitably qualified research proposal and experiences. Additional information and application forms will be obtained from: Jun Minowada, M.D., Director, Fujisaki Cell Center, 675-1, Fujisaki, Okayama 702, Japan.

POSTDOCTORAL FELLOWSHIP IN CELL AND MOLECULAR BIOLOGY

Postdoctoral position to study the molecular basis of cell differentiation. Approaches include immunochemistry, eukaryotic cell transfection, establishment of temperature-sensitive cell lines, and various cellular and molecular biological techniques. Experience in molecular biology including recombinant DNA techniques preferred. Send curriculum vitae and names of three references to:

Frank E. Stockdale, M.D., Ph.D. Stanford School of Medicine, M-211 Stanford, CA 94305

INSTITUTE OF ECOSYSTEM STUDIES SUMMER RESEARCH FELLOWSHIPS

The Institute of Ecosystem Studies (IES) of The New **York Botanical Garden** will award one or two IES summer research fellowships for a 3-month period during summer 1986. These awards provide research opportunities for Ph.D.'s to do ecological research as part of the IES program at the Mary Flagler Cary Arboretum in Millbrook, New York. A diversity of terrestrial, wetland, and stream habitats, as well as excellent laboratory facili-ties, is available on the 779-hectare site. Award provides summer stipend plus funds for research supplies; free housing is available on site during summer. Applicants should have a Ph.D., an ecosystem orientation, and be interested in collaborative multidisciplinary studies. Send letter of application, curriculum vitae, and names of three references by 1 March to: Jonathon Cole, Institute of Ecosystem Studies, Box AB, Millbrook, New York 12545.

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MARKETPLACE

FOR SALE: Philips 300 Electron Microscope, S/N D764, excellent condition, 18 years old. Has always been under contract. Please call Dr. Richard Wilson, 402/559-4035, for additional information. Please call Richard Serpan, 402/559-5400, Purchasing Dept., Univ. of Nebr. Medical Center, 42nd & Dewey, Omaha, NE 68105, for a copy of Bid #S-190 due 2:00 PM, Friday, February 14, 1986. 5Inx1.067325a 4.1074x104Δf 36eⁱ⁰4.7a(n - 1) 4.71)δx/δt4.1074 (x)1.036eⁱ⁰4.7a(i 37.3 - xi8.12678



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