

mission at some point within the involved neural system. It is not known whether this modification is confined to the cerebellum or brainstem or is more distributed, involving changes at many locations in the circuit. It has been variously proposed that the cerebellum contains the engrams for motor learning, processes the error signals used for modification, or plays a role in coordinate transformations for sensory-to-motor integration. The editors have chosen not to include the cerebellar recording studies of Miles and Lisberger and of Ito because other reviews of the work have appeared, although the omission leaves a gap for readers not familiar with this cornerstone research. Two of the four theoretical chapters and the introductory chapter, by Simpson and Graf, discuss the coordinate transformations that are required in processing sensory signals for motor outputs.

As the editors point out, the morphological and biochemical changes involved in adaptive mechanisms are currently unknown. The book transmits the excitement of a field on the verge of major discovery. Parts of it require some knowledge of control systems analysis. The book will be an important addition for researchers and clinicians interested in the vestibular system, eye movements, motor systems in general, and central nervous system correlates of learning.

RICHARD A. ANDERSEN

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Old World Archeology

Prehistoric Europe. TIMOTHY CHAMPION, CLIVE GAMBLE, STEPHEN SHENNAN, and ALASDAIR WHITTLE. Academic Press, Orlando, Fla., 1984. x, 359 pp., illus. \$45.

The writing of a general textbook on the prehistory of Europe is indeed an ambitious task. The prospective authors must confront an extraordinarily rich and varied archeological record, a literature that is vast and linguistically fragmented, and interpretative frameworks reflecting diverse regional histories. *Prehistoric Europe* represents a successful confrontation.

Given the diversity of archeological materials to be covered, any textbook must generalize about regional patterns and temporal trends. There is an attendant risk, however, that local variation, which may have significant implications, will be ignored and that the account will

be so divorced from specific archeological finds that it provides little understanding of the basis for interpretations. This book achieves a balance between detail and generalization. The chapters, generally covering a particular time period, each include an overall summary and a more detailed discussion of different regions (for example the west and central Mediterranean), with descriptions of key sites or studies and their significance. The descriptions are brief but are often supported by illustrations and are sufficient to acquaint readers with the kinds of evidence available. Pertinent references are also given, so that readers can investigate further. Moreover, the authors emphasize variation and exceptions to their generalizations, avoiding the creation of overly neat scenarios of the past.

The authors also achieve remarkable geographic and chronological balance. Previous textbooks have tended to emphasize the most intensively studied regions and periods, those with the most dramatic finds, or those most familiar to the authors. Consequently, students have tended to learn the Paleolithic of southwestern France, the Mesolithic of Scandinavia and England, the Neolithic of the Balkans, and the Bronze and Iron Age of central Europe. This book is much more uniform in that respect. Particular areas, such as Neolithic Wessex or the Bronze Age Aegean, are emphasized as befits their rich archeological materials, but the authors address the question of the uneven evidence. Thus, they attribute their telling little about the late Middle Paleolithic of central Europe and the Neolithic of much of Iberia to the paucity of occupation in the former case, to a lack of investigation in the latter. More than other such books, this one gives the reader an appreciation of the texture of both prehistoric developments and archeological research across the continent.

Another kind of balance is achieved among levels of archeological interpretation. Beyond the description of material objects, archeologists seek to reconstruct prehistoric behavior within sites and across regions and, ultimately, to explain this behavior, its distribution and changes in space and time. The authors include both reconstruction and explanation. For the former they draw heavily upon recent ethnoarcheological studies of living peoples, physical studies of soils and raw material composition, and quantitative studies of distribution patterns. For the latter they incorporate work in cultural anthropology and investigations of settlement patterning and

burial furnishings. They are careful in their reconstructions to point out weaknesses in data or methods and to distinguish between data and interpretation. Although they do not dwell upon questions of the origins of practices such as food storage and plow agriculture, they emphasize their economic, social, and political implications in relation to their adoption and spread.

Finally, the authors attempt to balance the explanations they offer. In their explanations of sociopolitical change, for example, they emphasize subsistence and population density, but they frequently point out the inadequacies of such materialist approaches and discuss alternatives. In explaining changes in material culture, although they often reject both large-scale migrations and independent local developments, favoring models of interregional exchange and interaction, they discuss all these possibilities, providing references for the various points of view.

As in other textbooks, all the high points of European prehistory—cave paintings, Stonehenge, and Mycenae, to name a few—are discussed here. What is unique about this presentation is its balance and coherence.

MICHAEL A. JOCHIM

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Books Received

Arms Control and the Arms Race. Readings from *Scientific American*. Introductions by Bruce Russett and Fred Chernoff. Freeman, New York, 1985. 229 pp., illus. Paper, \$14.95.

Astronomy and the Imagination. A New Approach to Man's Experience of the Stars. Norman Davidson. Routledge and Kegan Paul, Boston, 1985. xviii, 238 pp., illus. \$25.

Astrophysics of Active Galaxies and Quasi-Stellar Objects. Joseph S. Miller, Ed. University Science Books, Mill Valley, Calif., 1985. viii, 519 pp., illus. \$30. From a workshop, Santa Cruz, Calif., July 1984.

Atlas of Dinoflagellates. A Scanning Electron Microscope Survey. John D. Dodge. Farrand Press, London, 1985. viii, 119 pp. \$24.50.

Autoionization. Recent Developments and Applications. Aaron Temkin, Ed. Plenum, New York, 1985. xiv, 261 pp. \$45.

Automation and Robotisation in Welding and Allied Processes. Published on behalf of the International Institute of Welding by Pergamon, New York, 1985. xii, 417 pp., illus. \$75. From a conference, Strasbourg, France, Sept. 1985.

Basic and Applied Mutagenesis. With Special Reference to Agricultural Chemicals in Developing Countries. Amir Muhammed and R.C. von Borstel, Eds. Plenum, New York, 1985. xii, 441 pp., illus. \$55. Basic Life Sciences, vol. 34. From a symposium, Islamabad, Pakistan, Oct. 1982.

Bellamy's New World. A Botanical History of America. David Bellamy. British Broadcasting Corporation, London, and Parkwest, New York, 1985. 192 pp., illus. \$24.95.

Bioactive Polymeric Systems. An Overview. Charles G. Gebelein and Charles E. Carraher, Jr., Eds. Plenum, New York, 1985. xxiv, 689 pp., illus. \$95.

Biochemical Pharmacology and Toxicology. Vol. 1,

(Continued on page 1413)

BOOKS RECEIVED

(Continued from page 1372)

Methodological Aspects of Drug Metabolizing Enzymes. David Zakim and Donald A. Vessey, Eds. Wiley-Interscience, New York, 1985. xiv, 372 pp., illus. \$65.

Chemical Demonstrations. A Sourcebook for Teachers. Lee R. Summerlin and James L. Ealy, Jr. American Chemical Society, Washington, D.C., 1985. x, 190 pp., illus. Spiral bound, \$19.95.

Chlorinated Dioxins and Related Compounds 1984. M. J. Boddington et al., Eds. Pergamon, New York, 1985. viii + pp. 571-989, illus. Paper, \$46. *Chemosphere*, vol. 14, no. 6/7. From a symposium, Ottawa, Canada, Oct. 1984.

Encyclopedia of Statistical Sciences. Vol. 6, Multivariate Analysis to Plackett and Burman Designs. Samuel Kotz, Normal L. Johnson, and Campbell B. Read, Eds. Wiley-Interscience, New York, 1985. x, 758 pp., illus. \$85.

Endangered by Science? Albert Jacquard. Columbia University Press, New York, 1985. viii, 216 pp. \$24. Translated from the French edition (1982) by Margaret M. Moriarty.

Energy and Cities. John Byrne and Daniel Rich, Eds. Transaction (Rutgers University), New Brunswick, N.J., 1985. x, 173 pp., illus. Paper, \$12.95. *Energy Policy Studies*, vol. 2.

Human Hybridomas and Monoclonal Antibodies. Edgar G. Engleman et al., Eds. Plenum, New York, 1985. xxiv, 526 pp., illus. \$69.50.

Human Origins. The Fossil Record. Clark Spencer Larsen and Robert M. Matter. Waveland, Prospect Heights, Ill., 1985. x, 293 pp., illus. Paper, \$12.95.

Igneous Petrology. Alexander R. McBirney. Illustrated by Christine McBirney. Freeman, Cooper, San Francisco, 1985. 504 pp. + index. \$38.75.

Managing the Ocean. Resources, Research, Law. Jacques G. Richardson, Ed. Lomond, Mt. Airy, Md., 1985. xvi, 407 pp., illus. \$28.95.

Mathematics in the Social and Life Sciences. Theories, Models and Methods. M. A. Ball, Horwood, Chichester, England, and Halsted (Wiley), New York, 1985. 296 pp., illus. \$57. *Mathematics and Its Applications*.

Mechanisms of Cytotoxicity by NK Cells. Ronald B. Herberman and Denis M. Callewaert, Eds. Academic Press, Orlando, Fla., 1985. xxiv, 669 pp., illus. \$57. From a workshop, Rochester, Mich., May 1984.

Nonequilibrium Phonon Dynamics. Walter E. Bron, Ed. Plenum, New York, 1985. x, 679 pp., illus. \$97.50. NATO ASI Series B, vol. 124. From an institute, Les Arcs, France, Aug. 1984.

Nucleosynthesis. Challenges and New Developments. W. David Arnett and James W. Truran, Eds. University of Chicago Press, Chicago, 1985. x, 38 pp., illus. \$36; paper, \$18. From a symposium, Chicago, 1983.

Nuclear Winter. The Evidence and the Risks. Owen Greene, Ian Percival, and Irene Ridge. Polity Press, Cambridge, England, 1985 (U.S. distributor, Basil Blackwell, New York). viii, 216 pp., illus. \$34.95; paper, \$9.95.

Peptide Hormones as Mediators in Immunology and Oncology. R.-D. Hesch and M. J. Atkinson, Eds. Raven, New York, 1985. xvi, 254 pp., illus. \$42. Sero Symposia Publications from Raven Press, vol. 19.

A Practical Handbook for Software Development. N. D. Birrell and M. A. Ould. Cambridge University Press, New York, 1985. x, 259 pp., illus. \$34.50.

Prehistoric Food Production in North America. Richard I. Ford, Ed. University of Michigan Museum of Anthropology, Ann Arbor, 1985. xvi, 411 pp., illus. Paper \$15. *Anthropological Papers*, Museum of Anthropology, University of Michigan, no. 75. From a seminar, Santa Fe, N.M., March 1980.

Princes and Peasants. Smallpox in History. Donald R. Hopkins. University of Chicago Press, Chicago, 1985. xx, 380 pp., illus. Paper, \$12.95. Reprint, 1983 edition.

Regulation of Carbon Partitioning in Photosynthetic Tissue. Robert L. Heath and Jack Preiss, Eds. American Society of Plant Physiologists, Rockville, Md., 1985. xxii, 374 pp., illus. Paper \$20. From a symposium, Riverside, Calif., Jan. 1985.

Risk and the Control of Technology. Public Policies for Road Traffic Safety in Britain and the United States. Alan Irwin. Manchester University Press, Dover, N.H., 1985. viii, 265 pp., illus. \$31.50.

Soil Chemistry. Hinrich L. Bohn, Brian L. McNeal, and George A. O'Connor. 2nd ed. Wiley-Interscience, New York, 1985. xvi, 341 pp. \$29.95.

Time Resolution in Auditory Systems. Axel Michelsen, Ed. Springer-Verlag, New York, 1985. x, 242 pp., illus. \$25. From a symposium, Gamle Avenaes, Denmark, Aug. 1984.

Total Pressure Measurements in Vacuum Technology. A. Berman. Academic Press, Orlando, Fla., 1985. xvi, 396 pp., illus. \$59.50.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Any deadline in ad must be at least 2 weeks after date of issue in which ad appears. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference.

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POSITIONS WANTED

Cell Biologist. Ph.D. 1981. Seeking scientific administration or management position. Excellent oral and written communication skills. Publications, teaching, supervisory, and grants experience. Box 266, SCIENCE. 12/20; 1/3

Immunologist. Ph.D. Senior scientist with extensive background in areas of hybridoma/monoclonal antibody development for use in cancer therapy and imaging, lymphokines, and cell-mediated cytotoxicity. Expert tissue culturist, with superior communication, writing, and supervisory skills. Excellent publications and references. Seeking responsible position in industry or academic laboratory. Box 268, SCIENCE. 12/20; 1/3

Marine Ecology-Fluid Dynamics-Research. Interdisciplinary background: chemistry, physiology, M.S. marine science. Work towards Ph.D. using computer modeling of swimming mechanics. Variety of analytical skills, publications, and teaching. Box 271, SCIENCE. X

Technician, Neurobiology. Recent B.S. in zoology seeks research position in Chicago area. Highly motivated toward field with undergraduate neuroexperience. Will consider other locations. Box 269, SCIENCE. 12/20; 1/3

POSITIONS OPEN

ASSISTANT PROFESSOR OF ANATOMY. Academy of Health Sciences, Fort Sam Houston, Texas, is seeking an assistant professor to teach undergraduate and graduate level gross anatomy, neuroanatomy, and microscopic anatomy. Requirements include: Ph.D. in anatomy or M.S. with professional experience in anatomy instruction, at least 1 year of professional experience at the GS-11 level or its equivalent, and qualification for GS-12. For more information, call: **Jan Coultrap**; telephone: **512-221-5452/5878**.

POSITIONS OPEN

HARVARD MEDICAL SCHOOL DEPARTMENT OF GENETICS

The Department of Genetics of the Harvard Medical School is seeking applicants for the position of **ASSISTANT OR ASSOCIATE PROFESSOR**. Candidate should have sufficient research experience to demonstrate both significant accomplishment and strong promise. The successful candidate will have available considerable resources to develop a research program addressing problems in contemporary genetics (as broadly defined). The candidate will also be expected to participate in the educational programs of the department. Letters of application including curriculum vitae, bibliography, a brief statement (less than 500 words) indicating research interests, and the names of three references should be sent to: **Professor Philip Leder, Chairman, Department of Genetics, Harvard Medical School, 25 Shattuck Street, Boston, Massachusetts 02115**.

Harvard University is an Equal Opportunity/Affirmative Action Employer. Qualified women and minority group members are encouraged to apply.

Adjunct **ASSISTANT PROFESSOR** position available to study the yeast to hypha transition of *Candida albicans*. Project involves in vivo and in vitro analyses, as well as the integration of these data into dynamic (computer) models of this system. Experience with *Candida albicans* and computer simulation techniques preferred. Salary: \$19,690 or more depending on qualifications. Send résumé and references by 3 January 1986 to: **John McCoy, Missoula Job Service, P.O. Box 5027, Missoula, Mont. 59806**.

ASSISTANT PROFESSOR OF ANATOMY

The Department of Anatomy, The Ohio State University, is seeking exceptional candidates to fill a tenure-track position. Applicants should have a Ph.D. or M.D. degree and a minimum of 2 years of postdoctoral experience. A successful candidate must have a strong record of scientific accomplishments and the ability to develop an independent research program. The department presently has an interactive group of cell biologists interested in synaptogenesis, receptor localization, cellular communication, molecular development, and immunobiology. Preference will be given to candidates with research expertise in the use of molecular approaches to studying cells and tissues. Additional responsibilities include teaching gross anatomy to professional students and establishing a graduate course. Curriculum vitae and three letters of recommendation should be sent by 1 February 1986 to:

James S. King, Ph.D.
Professor and Chairman
The Ohio State University
Department of Anatomy
4066 Graves Hall
333 West 10 Avenue
Columbus, Ohio 43210

The Ohio State University is an Equal Opportunity Employer.

ASSISTANT PROFESSOR IN BACTERIAL GENETICS: As part of the rapidly expanding research and graduate training programs in the basic sciences of Emory University School of Medicine, the Department of Microbiology and Immunology is seeking to fill a new tenure-track **FACULTY POSITION** in bacterial genetics 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 by 1 February 1986 to: **Dr. June R. Scott, Bacterial Genetics Search Committee, Department of Microbiology and Immunology, Emory University School of Medicine, Atlanta, Ga. 30322**.

Emory University is an Equal Opportunity Affirmative Action Employer.

ASSISTANT PROFESSOR OF BIOLOGY. Molecular biologist with postdoctoral experience, preferably with gene expression in multicellular eukaryotes, to teach courses from among genetics, developmental biology and molecular biology with occasional participation in introductory biology, and/or freshman seminars. The individual will be expected to maintain an active personal research program and direct the research of undergraduate students. Send application, including transcript and three letters of reference, to: **J. E. Perley, Department of Biology, The College of Wooster, Wooster, Ohio 44691**, no later than 31 January 1986. *The College of Wooster, an independent liberal arts college, is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

DEPARTMENT OF BIOLOGY WEST VIRGINIA UNIVERSITY

Applications are invited for three tenure-track positions at the ASSISTANT PROFESSOR level. Depending upon funding, one position might be filled at the associate professor level. We are searching for: (i) a stream ecologist interested in modeling and aspects of streams other than fishes; (ii) a plant ecologist with a strong background in population genetics; (iii) a cellular/molecular biologist with teaching competence in human or comparative animal physiology. Candidates for all positions should have teaching experience at the undergraduate level and demonstrated research capabilities, preferably postdoctoral experience with publications, and will be expected to initiate vigorous research programs meriting financial support by appropriate off-campus agencies. Successful candidates will be expected to teach courses at the undergraduate and the graduate levels. Applications should be received by 1 February to ensure consideration and must include curriculum vitae, copies of publications, names and addresses of at least three references, and a one- to two-page statement of research plans. Send applications to: **Dr. Roy Clarkson, Department of Biology, P.O. Box 6057, West Virginia University, Morgantown, W.Va. 26506.** *West Virginia University is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR UNIVERSITY OF FLORIDA JOHN HILLIS MILLER HEALTH CENTER

The Department of Comparative and Experimental Pathology invites applications for a tenure-track position. The candidate should have a strong commitment to developing an independent research program in a department with research interests in membrane biology, immune modulators, virology, and immunopathology. Applicants should be able to coordinate and contribute to a course in pharmacology for professional students. Send curriculum vitae, statement of research interests, and names of three references to: **Dr. Lindsey Hutt-Fletcher, Department of Comparative and Experimental Pathology, Box J-145 JHMC, University of Florida, Gainesville, Fla. 32610.** Salary will be commensurate with experience. Deadline for receipt of applications is 31 January 1986. *The University of Florida is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSORS—BIOLOGY. The College of Liberal Arts at Drew has two tenure-track positions available in biology for September 1986. They include: **BOTANY** (the botanical component in Introductory Biology, a Plant Form and Function course, and courses in Terrestrial Ecology and the area of growth and development); and **DEVELOPMENTAL BIOLOGY** (courses for majors in developmental biology, vertebrate anatomy, and in related areas, for example, endocrinology, human sexuality). The appointees must have completed the Ph.D. degree. Effective undergraduate teaching is emphasized, and teaching experience is preferred. Research involvement is encouraged. Experience in computer/instrumentation interfacing, electron microscopy, or radiobiology is desirable. Applicants should submit curriculum vitae and names and addresses of three references by 31 January 1986 to: **L. W. Pollock (botany) or H. C. Rohrs (developmental biology), Chairman, Search Committee, Biology Department, Drew University, Madison, New Jersey 07940.**

An Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR, POPULATION GENETICS AND EVOLUTIONARY BIOLOGY (PGE), experienced with natural populations of eukaryotic organisms. Expected position to start August 1986. Candidates must have a Ph.D., potential for excellence in teaching, and the prospect to develop a high quality, independently funded research program. Teaching to include undergraduate and graduate courses in the area of specialization. Send a statement of goals, curriculum vitae, and names of three references to: **PGE Search Committee, Department of Biology, Number 31, Lehigh University, Bethlehem, Pa. 18015.** *Lehigh University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION to study reactor design, optimization, modeling, and process control for anaerobic digestion of biomass and wastes. Degree in engineering required, with experience in bioengineering aspects of anaerobic digestion. Position available beginning 1 January 1986 for 2 years. Send curriculum vitae and names of three references to: **Dr. David P. Chynoweth, Agricultural Engineering Department, Rogers Hall, University of Florida, Gainesville, Fla. 32611.**

POSITIONS OPEN

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, Tex. 75235-9070.** *An Equal Opportunity Employer University.*

ASSISTANT PROFESSOR OF AGRICULTURAL METEOROLOGY CORNELL UNIVERSITY DEPARTMENT OF AGRONOMY

Applications are invited for a tenure-track faculty position available 1 July 1986. A Ph.D. degree in agricultural meteorology, meteorology, or closely related area is required. Training or experience in plant, crop, and soil science is desirable. Responsibilities include: (i) developing and directing research programs which focus on interactions between the atmosphere and agronomic crop development, production systems, or operations; (ii) teaching one course each semester covering elementary and advanced level topics relevant to agricultural meteorology; (iii) advising undergraduate and graduate students; (iv) serving as a consultant and resource person on the subject of meteorological data and its applications to agricultural research and extension work. The division of effort is approximately 50 percent research.

Applicants should submit curriculum vitae, transcripts, and the names and addresses of three references to: **Dr. R. F. Lucey, Chairman, Department of Agronomy, Cornell University, Ithaca, N.Y. 14853.** Deadline for applications is 1 March 1986.

An Equal Opportunity/Affirmative Action Employer

ASSISTANT OR ASSOCIATE PROFESSOR TUMOR IMMUNOLOGIST VIRGINIA COMMONWEALTH UNIVERSITY (VCU) RICHMOND, VIRGINIA

Applications and nominations are invited from highly qualified individuals for a full-time position in the Massey Cancer Center with the academic appointment in the Schools of Basic Health Science or Medicine. Applicants must hold a Ph.D., M.D., D.V.M., or equivalent degree and have at least 2 years of productive postdoctoral research experience. Research areas of special interest include tumor biology or immunology. Individual will develop and maintain strong, grant supported, independent research programs, and participate in the education of graduate and postdoctoral trainees. Teaching in graduate and professional level courses is required. A starting date of 1 July 1986 is desired. Applications, curriculum vitae, a statement of research interest, and names of three references should be sent to: **William L. Banks, Jr., Ph.D., Co-Director, Massey Cancer Center, Box 37, MCV Station, Richmond, Virginia 23298-0001.** Applications should be postmarked 31 December 1985, though the search committee will continue to receive applications and nominations until the position is filled. *VCU is an Equal Opportunity Affirmative Action Employer. Minorities and women are encouraged to apply.*

TENURE-TRACK OPENING at the junior level in an ACS-approved department at an undergraduate university of 1600 students. Ph.D. in biochemistry or organic chemistry required. The successful candidate will be expected to teach biochemistry, share in the teaching of organic chemistry, and assist the rest of the department in teaching laboratory sections and nonmajors courses. Send application, including undergraduate and graduate transcripts, and have three letters of recommendation sent to: **Dr. David N. Bailey, Head, Department of Chemistry, Illinois Wesleyan University, Bloomington, Ill. 61702.** *IWU is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION to study the microbiology of hydrolysis of cellulose and other polymers in the methane fermentation of biomass and wastes. Experience with anaerobic bacteria and hydrolysis reactions preferred. Position available beginning 1 January 1986 for 2 years. Send curriculum vitae and names of three references to: **Dr. David P. Chynoweth, Agricultural Engineering Department, Rogers Hall, University of Florida, Gainesville, Fla. 32611.**

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY

The Department of Biology at Oberlin College invites applications for a full-time, continuing position beginning 1 July 1986 with a 4-year appointment in the area of cell/developmental biology.

Teaching responsibilities will include involvement in a team-taught introductory core sequence, as well as sole responsibility for advanced offerings in cell/developmental biology. Academic advising and supervision of undergraduate research is required. The incumbent is also expected to maintain an active research program leading to publication. Preference will be given to candidates with some teaching and postdoctoral experience and a molecular/experimental orientation. Candidates with training in developmental neurobiology will be especially attractive, although persons with other backgrounds will be given full consideration.

Submit applications by 5 February to: **Dr. David H. Benzing, Chairman, Department of Biology, Oberlin College, Oberlin, Ohio 44074.** Include curriculum vitae, transcripts of both undergraduate and graduate work, plus at least three letters of reference.

Oberlin College has adopted an Affirmative Action plan and, as an Equal Opportunity Employer, welcomes applications from female and minority candidates.

ASSISTANT PROFESSOR IN DROSOPHILA MOLECULAR BIOLOGY

The Department of Biology is seeking applications for an assistant professor position (tenure-track), effective 1 July 1987. Candidates should have postdoctoral experience and demonstrated ability to establish a strong and independent research program. The position is intended to complement existing programs in *Drosophila* developmental, neuro-, and molecular biology and to strengthen our emphasis in these areas. Candidates should send a brief letter describing their research interests, curriculum vitae, and names, addresses, and telephone numbers of three referees before 1 February 1986 to:

Dr. Michael Roshash, Chairman, Search Committee, Department of Biology, Brandeis University, Waltham, Mass. 02254.

ASSISTANT RESEARCH SCIENTIST IN BIOENGINEERING. The person filling this position will be responsible for management of bioengineering activities of the bioconversion research laboratory studying production of methane and other chemicals from biomass and wastes. The person will be responsible for management of activities including bench-to-pilot scale process development, optimization, analysis and design, and integration with overall systems analysis. The person will be directly involved in proposal and report preparation and oral presentation of research results. The applicant must have a Ph.D. in engineering and experience in anaerobic digestion at the bench and pilot-scale and experience in report and proposal preparation. The position will be available 1 January 1986. This position does not accrue tenure. *The University of Florida is an Equal Opportunity Employer and invites applications from all qualified candidates.* Applications, including curriculum vitae and three letters of reference, should be sent to: **Dr. David P. Chynoweth, Ph.D., Department of Agricultural Engineering, 102 Frazier Rogers Hall, University of Florida, Gainesville, Fla. 32611.**

BIOLOGY FACULTY POSITIONS

Two tenure-track positions anticipated for fall 1986 at a comprehensive university of 25,000 students located in a pleasant community 60 miles west of Chicago. A Ph.D. and postdoctoral experience are required. Successful candidates will be expected to maintain a vigorous research program, direct graduate (M.S. and Ph.D.) students, and teach the equivalent of one course per semester.

MICROBIOLOGIST-EUKARYOTIC VIROLOGIST: Assistant professor. Active research in eukaryotic virology is required. To teach courses in microbiology and virology.

PLANT EVOLUTIONARY BIOLOGIST OR PLANT ECOLOGIST: Assistant professor. A botanist with an active research program in plant evolutionary biology and/or plant ecology. To teach a course in evolution or plant ecology and a course in biostatistics.

Send curriculum vitae, statement of research goals, and three letters of reference by 1 February 1986 to: **Dr. Marvin Starzyk, Chairman, Department of Biological Sciences, Northern Illinois University, DeKalb, Ill. 60115-2861.** Telephone: 815-753-1753. *The University is an Affirmative Action/Equal Opportunity Employer.*

SCIENTIFIC EXCHANGES

NAS Scientific Exchange Programs with the U.S.S.R. and Eastern Europe

The National Academy of Sciences (NAS) invites applications from American scientists who wish to make visits beginning during the period 1 September 1986, through 31 December 1987, to the U.S.S.R., Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, and Yugoslavia. Long-term research visits of 3 to 12 months duration are encouraged, particularly if contact with colleagues in the other country has already been established. The minimum length of visits is 1 month in one country.

Applicants must be U.S. citizens and have a doctoral degree or its equivalent by the time of the intended visit in physics; chemistry; mathematics and computer sciences; earth, atmospheric, and oceanographic sciences; agricultural, forestry, fishery, and plant sciences; biological and medical sciences; environmental sciences; engineering; archaeology and anthropology; geography; or psychology. Also included are science and technology policy studies and other aspects of the economic and social sciences that involve quantitative analysis. Other scientific disciplines not explicitly mentioned will be considered on a case-by-case basis. Necessary expenses will be met by the NAS and the foreign academy, including reimbursement for long-term visitors for salary lost up to a predetermined maximum and expenses for accompanying family members for visits exceeding 5 months.

Requests for applications should reach the National Academy of Sciences not later than 14 February 1986. Applications must be postmarked by 28 February 1986. Address application requests to:

National Academy of Sciences
Office of International Affairs
Soviet and East European Affairs
2101 Constitution Avenue, NW
Washington, D.C. 20418
Telephone: 202-334-2644

Simon Fraser University



THE SHRUM CHAIR IN SCIENCE

The Faculty of Science, SIMON FRASER UNIVERSITY, seeks applications or nominations for an appointment to the Shrum Chair in Science. Candidates should be outstanding scholars, whose research interests match those currently represented in the Department of Biological Sciences, Chemistry, Mathematics and Statistics, or Physics.

The Shrum Chair will provide support for the scholar a maximum 5-year term. The successful candidate will be appointed as a member of faculty of one of the participating departments, generally with tenure. Conditions of employment are negotiable, but will involve the Chairholder in an active research and graduate teaching program. Expressions of interest in this position should be received by **JANUARY 31, 1986**. It is anticipated that the appointment will commence **SEPTEMBER 1, 1986**. Applications or nominations together with the names of three referees should be sent to:

DR. GLEN H. GEEN
Dean of Science
SIMON FRASER UNIVERSITY
Burnaby, B.C.
Canada V5A 1S6

University of Utrecht

The Faculty of Mathematics and Science
has an opening for a

Full Professor in the Philosophy of the Exact Sciences

Duties

The appointee is expected to direct research and teaching in the philosophy and foundations of the natural sciences, with emphasis on the fundamental presuppositions underlying the process of theory formation and scientific experimentation/observation. He will be responsible for teaching within the Foundations of Physics Course in the Department of Physics and Astronomy as well as for teaching in the philosophy of the natural sciences in the Faculty of Philosophy.

Requirements

A candidate should

- have understanding of and interest in the philosophical issues raised by the sciences and should have broad knowledge of research in the foundations of physics,
- be an experienced researcher, as evidenced by publications,
- possess didactical qualities and should have teaching experience,
- be able to maintain good contacts with research groups working in the sciences, in the history of science and in philosophy.

Salary will be according to state regulations (scale A), ranging from Dfl. 6854,— to Dfl. 9495, —.

Applications, including curriculum vitae and list of publications, are to be sent within four weeks after appearance of this journal to the **Dean of the Faculty, Prof.dr. C. van der Leun, Robert J. van de Graafflaboratorium, Princetonplein 5, 3584 CC Utrecht, The Netherlands.**

Those wishing to recommend suitable candidates are invited to do so in writing to the Dean of the Faculty.

In view of the University's policy to employ more women, preference is given to a female candidate in the case of equal qualifications.

Additional information can be obtained from **Prof.dr. G. Neinhuis, Laboratorium voor Experimentele Fysica, Princetonplein 5, 3584 CC Utrecht, The Netherlands; telephone 030/533303.**

POSITIONS OPEN

ASSOCIATE SCIENTIST/SCIENTIST, IMMUNO-ASSAY DEVELOPMENT. Genentech, Inc., a leader in the field of biotechnology, has an opening in the Immunoassay Development Section of the Medicinal Analytical Chemistry group for a Principal Investigator to develop qualified immunoassays for the detection of antigens and antibodies. The successful candidate will have a Ph.D. in biochemistry/microbiology and several years of relevant postdoctoral training.

We offer an excellent salary and benefits package. Please send résumé to: **Human Resources Department Number 1329, Genentech, Inc., 460 Port San Bruno Boulevard, South San Francisco, Calif. 94080.** An Equal Opportunity Employer.

JUNIOR TENURE-TRACK POSITION IN BEHAVIORAL NEUROSCIENCE: The Department of Psychology at Duke University anticipates a period of growth during the next 4 years. As part of this process, we invite applications and nominations for an assistant professor in the general area of behavioral neuroscience broadly defined. We seek applicants dedicated to scientific research, and also interested in teaching bright undergraduates. Excellence in research is our primary criterion. The closing date for application submission is 3 January 1986. Send a comprehensive curriculum vitae, representative reprints/preprints, and the names of at least three referees to: **Dr. J. E. R. Staddon, Chairman, Department of Psychology, Duke University, Durham, N.C. 27706.** Duke University is an Equal Opportunity Affirmative Action Employer.

CELL BIOLOGIST/IMMUNOLOGIST

Cetus Corporation, a leader in the development of biotechnology-based health care products, seeks a scientist to participate in research on protein therapeutics. Applicants must have at least 4 years of experience after a Ph.D. in cell biology, cellular immunology, or related field, with a strong scientific/publication record and proven ability in directing independent research. This individual will be responsible for development of new therapeutic projects including production, assays, and mechanisms of action of human cytokines. Working in the Cell Biology Department, this person will interact with scientists in pharmacology, protein chemistry, and molecular biology.

Please send your résumé in confidence to:

CETUS CORPORATION

Box PRS
1400 Fifty-third Street
Emeryville, Calif. 94608
Equal Opportunity Employer

CELL BIOLOGY

The Department of Biological Sciences of Stanford University seeks applicants for a tenure-track position at the **assistant professor** level in the area of eukaryotic cell biology. Suitable areas include receptors and signal transduction mechanisms, intracellular protein trafficking, and the cytoskeleton. Candidates must have an outstanding research record and will be expected to establish an innovative research program. Teaching responsibilities will include undergraduate and graduate courses in cell biology. *Applications from women and minorities are encouraged.* Send curriculum vitae, a statement of research accomplishments and anticipated research directions, and the names of three references to: **Chairperson, Cell Biology Search Committee, Department of Biological Sciences, Stanford University, Stanford, California 94305.** Applications should be received by 1 February 1986. *Stanford University is an Equal Opportunity Employer.*

The **CALIFORNIA ACADEMY OF SCIENCES**, Northern California's largest natural history museum, invites applications at all levels for the **IRVINE CHAIR IN ANTHROPOLOGY**. As curator and chairman of the Department of Anthropology, the successful candidate will participate in the development and implementation of public programs relating to anthropology and will oversee the expansion of ethnological and archeological collections in one or more of the following areas: western North America, the Pacific-Far East, and Central and South America. Excellent research and publication record (specialization open) expected. Ph.D. required. Send letter of interest and résumé by 1 March 1986 to: **Personnel Manager, California Academy of Sciences, Golden Gate Park, San Francisco, Calif. 94118.**

POSITIONS OPEN

BIOCHEMISTRY/IMMUNOLOGY

The School of Pharmacy, Campbell University, invites applications for a 12-month, tenure-track position at the level of assistant or associate professor, beginning 1 July 1986. Applicants should have a Ph.D. and broad training in biochemistry and immunology. While the area of specialization is open, candidates with research interests in immunomodulation for therapeutic purposes and/or site-specific drug targeting by antibodies are desirable. The successful candidate will participate in the teaching of biochemistry and immunology in the professional curriculum. Excellence in teaching is expected. Applicants should submit curriculum vitae, a statement of research and teaching goals, and three letters of reference to: **Dr. Harry Rosenberg, Chairman, Department of Pharmaceutical Sciences, School of Pharmacy, Campbell University, Buies Creek, North Carolina 27506.**

BIOCHEMICAL PHARMACOLOGIST—Position available for research associate/assistant research scientist with Ph.D. in pharmacology, biochemistry, or molecular biology to investigate the role of free radical formation in antineoplastic drug action; analytical (HPLC, ESR, CG-MS) and cell culture experience required; knowledge of membrane biochemistry and recombinant DNA technology helpful. Send curriculum vitae to: **Dr. J. Doroshov, Department of Medical Oncology, City of Hope Medical Center, 1500 East Duarte Road, Duarte, Calif. 91010.**

BIOLOGY: Baldwin-Wallace College is seeking an **ECOLOGIST** prepared to teach a course in ecology for biology majors, a non-major course in field biology, and a third course to be determined. All courses are at the undergraduate level. Excellence in teaching is required and research is encouraged. Candidates must have a Ph.D.

The opening is for a three-year, non-tenure-track position available 1 September 1986. Baldwin-Wallace College is a private, liberal arts, 4-year institution with 1875 full-time and 1353 part-time students enrolled in day, evening, and weekend programs. Applications, including a résumé, transcripts, and three letters of recommendation, should be sent to: **Dr. Stephen D. Hilliard, Chairman, Biology Department, Baldwin-Wallace College, Berea, Ohio 44017.** Salary dependent on qualifications. *Equal Opportunity Affirmative Action Employer.* Deadline for receipt of applications is 1 February 1986.

BIOMEDICAL ENGINEERING (BME) INSTRUMENTATION POSITION

Applications are invited for a tenure-track position at the associate professor level in biomedical engineering. Applicants should have a Ph.D. in electrical or biomedical engineering with a background in instrumentation, experience in graduate level teaching, and demonstrated success in biomedical research. Responsibilities include teaching courses in M.S. and Ph.D. programs in BME, development of a strong research program involving close interaction with the medical community, and supervision of graduate student research. Applicants should submit curriculum vitae and a summary of current and future research interests to: **Dr. L. C. Sheppard, Chairman, Department of Biomedical Engineering, University of Alabama at Birmingham, Birmingham, Ala. 35294.** *The University of Alabama at Birmingham is an Equal Opportunity/Affirmative Action Employer.*

DEVELOPMENTAL BIOLOGIST

The Department of Anatomy and Cell Biology at The University of Cincinnati, College of Medicine, invites applications for two tenure-track positions at the assistant/associate professor level. The candidate must have postdoctoral experience and a strong research background in developmental and cellular biology. Applicants at the assistant professor level must be competitive for extramural funding, while applicants for a position as associate professor must be principal investigator or director of a funded program. The successful candidate will be expected to participate in vigorous graduate program and to teach one quarter of a team taught course in histology or gross anatomy to medical students. Please send curriculum vitae, a summary of current research and future research plans, and the names of three references to:

**Dr. Peter J. Stambrook, Search Committee
Department of Anatomy and Cell Biology
231 Bethesda Avenue, ML 521
University of Cincinnati College of Medicine
Cincinnati, Ohio 45267-0521
An Equal Opportunity Employer**

POSITIONS OPEN

CELL, MOLECULAR BIOLOGISTS

The University of Pittsburgh, Department of Anatomy and Cell Biology, is seeking to fill two tenure-track faculty positions. Candidates should have developed a strong research program in the area of cell and molecular biology and be capable of teaching histology and cell biology to medical students; they will also be expected to teach their specialty area to graduate students in the interdisciplinary Center for Neurosciences or cell and molecular biology programs. It is expected that one position will be filled with a candidate whose main interest lies in problems associated with the nervous system, while the other should be concerned with other tissues. It is expected that the positions will be filled at the assistant professor level, although outstanding candidates seeking appointment at the associate professor level will be considered. Deadline for application, 31 January 1986. Please send applications with names of three references and a summary of research interests to: **Chairman of Search Committee, Department of Anatomy and Cell Biology, School of Medicine, University of Pittsburgh, Pittsburgh, Pa. 15261.** *The University is an Equal Opportunity/Affirmative Action Employer.*

ENDOWED CHAIR IN CARDIOVASCULAR RESEARCH

A chair in cardiovascular research has been endowed at the University of Alberta in Edmonton with funds provided by the Alberta Heart Foundation and matched by the Department of Advanced Education, Government of Alberta (total \$1.5 million). Applications are now invited for this position with the intention that the incumbent will bring together a group, with the capability of performing high level research in the field of stroke and/or cardiovascular disease.

The position will carry the rank of full professor with appropriate salary and benefits. The successful applicant will have a proven record of scientific achievement in an area of cardiovascular research at the basic or applied level. The successful applicant will be eligible for an Establishment Grant from the Alberta Heritage Foundation for Medical Research, which includes funds for equipment, renovations, and operating.

Applicants should send complete curriculum vitae and the names of three referees. A brief outline of their research accomplishments, as well as their proposed research program, should be provided. A statement regarding other groups and disciplines with whom collaboration should prove useful, and special physical requirements for the proposed research should be included.

The University of Alberta is an Equal Opportunity Employer, but in accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Replies should be sent in confidence by 28 February 1986 to: **Dr. A. B. Jones, M.D., Associate Dean (Faculty Affairs), Faculty of Medicine, 212.00 Walter C. Mackenzie Health Sciences Centre, University of Alberta, Edmonton, Alberta, Canada T6G 2R7.**

UNIVERSITY OF NEBRASKA-LINCOLN CHAIR, DEPARTMENT OF CHEMISTRY

Nominations and applications are invited for the position of chair and professor with tenure. A fall 1986 starting date is preferred. Candidates should have a nationally respected chemistry research program with major external funding, proven teaching ability, and demonstrated leadership. Applications with curriculum vitae or nominations should be sent by 14 February to: **Professor Michael L. Gross, Chemistry Chair Search Committee, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, Nebraska 68588-0304.**

Affirmative Action/Equal Opportunity Employer

DIRECTOR, DEPARTMENT OF PATHOLOGY

The **JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE** and the **JOHNS HOPKINS HOSPITAL** are seeking a physician to lead our Department of Pathology as professor and director. Applicants should have demonstrated outstanding abilities in research and teaching, as well as the capability to direct the service missions of the department.

Please send letter of application, curriculum vitae, and bibliography to: **Dr. David A. Blake, Secretary, Pathology Search Committee, Johns Hopkins University School of Medicine, 720 Rutland Avenue, Baltimore, Maryland 21205.**

An Affirmative Action/Equal Opportunity Employer. Deadline date for submission: 1 February 1986.

TOXICOLOGISTS

Life Systems, Inc. is a high-tech R&D company at the leading edge of interdisciplinary environmental health studies, and has excellent career opportunities for highly motivated scientists. The following positions are available to qualified candidates with experience in one or both of the following areas:

- Toxicology – focus on Pesticides and Other Organics
- Human Metabolism of Environmental Chemicals

The successful applicants will possess a Ph.D. with 8–11 years of relevant experience. Risk assessment experience a plus. The positions will require you to plan and perform non-laboratory environmental health effects evaluations, prepare criteria documents and risk assessments, and participate in planning environmental health projects. You will be expected to contribute technical expertise and insight across a broad spectrum of company activities.

These positions offer good salary + baseline benefits + flexible (your option) benefits + challenging assignments + respect for good work + good location. Send resume and salary history to Manager, Recruitment at:

ICAIR

Life Systems, Inc.

24755 Highpoint Road
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AUSTRALIA

CSIRO

RESEARCH FELLOW

A\$26,469–A\$32,660

DIVISION OF TROPICAL ANIMAL SCIENCE LONG POCKET LABORATORIES INDOOROOPIILLY QLD

GENERAL: The Division of Tropical Animal Science undertakes research activities on the improvement of animal health and production, particularly cattle production, in tropical Australia. It has programs on breeding and management, disease and parasite control and nutrition.

A major area of research being conducted at the Division's Long Pocket Laboratories is the development of experimental vaccines against diseases. The Division has groups undertaking immunological, biochemical and molecular studies of the antigen of disease agents. One of these programs is aimed at alleviating the potentially fatal toxico-sis, tick paralysis, caused by the Australian paralysis tick *Ixodes holocyclus* in domestic livestock and pets.

The tick paralysis program has reached the stage where the feasibility of vaccinating animals against the crude toxin has been demonstrated, and the toxin has been partially purified from extracts of the salivary gland of ticks.

DUTIES: To undertake collaborative research work to complete purification and characterisation of *Ixodes holocyclus* antigen and to produce the molecule in whole or part by recombinant DNA methods.

QUALIFICATIONS: A PhD degree or equivalent qualifications in the field of recombinant DNA technology, with some experience in protein chemistry.

TENURE: A term of 3 years with Australian Government superannuation benefits available.

APPLICATIONS: Stating relevant personal particulars, including details of qualifications and experience, the names of at least two professional referees and quoting reference No M7800, should be directed to:

The Chief
CSIRO Division of Tropical Animal Science
Private Bag No 3
INDOOROOPIILLY QLD 4068

By 4 weeks from date of publication

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER

AUSTRALIA

CSIRO

RESEARCH FELLOW

A\$26,001–A\$32,083

DIVISION OF PLANT INDUSTRY CANBERRA ACT

FIELD: Wheat Improvement—cytogenetics/tissue culture

GENERAL: The CSIRO Division of Plant Industry conducts research on problems fundamental to plant biology and agricultural production. Prominent among this research are programs in plant molecular biology. In collaboration with the Australian Centre for International Agricultural Research, the Division has initiated a project to utilise somaclonal variation to transfer disease resistance from wild species into wheat. Objectives focus on the needs of developing countries.

DUTIES: To collaborate in a research project using tissue culture to transfer genes from wild species in wheat. The appointee will conduct cytogenetic analysis of wheat alien addition lines and selected somaclones, and genetic analysis of segregating progeny.

QUALIFICATIONS: A PhD degree or equivalent qualifications in a relevant field. Experience in cytogenetic analysis, particularly of wheat, is desirable.

TENURE: A term of two years with Australian Government superannuation benefits available.

APPLICATIONS: Stating relevant personal particulars, including details of qualifications and experience, the names of at least two professional referees and quoting reference No M8371, should be directed to:

The Chief
CSIRO Division of Plant Industry
GPO Box 1600
CANBERRA ACT 2601

By 4 weeks from date of publication

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER

AUSTRALIA

CSIRO

RESEARCH FELLOW

BIOCHEMIST

A\$26,469–A\$38,931

DIVISION OF PLANT INDUSTRY CANBERRA ACT

GENERAL: The CSIRO Division of Plant Industry conducts research on problems fundamental to plant biology and agricultural production. One of the Division's programs involves research on the biochemical processes of photosynthesis and the development of herbicides that selectively inhibit photosynthesis.

DUTIES: The appointee will be expected to collaborate with scientists in the Division in a study of mechanism and regulation of C4 pathway photosynthesis and the physiological function of this process. This work involves investigations at the level of isolated enzymes, organelles, cells and intact leaves.

QUALIFICATIONS: A PhD degree or equivalent qualifications and a proven ability in biochemical research, and relevant research experience in some aspects of metabolism, preferably of plants. Experience in any of the following would be advantageous: enzymology, metabolite pool analysis, metabolite transport studies, isolation and studies on organelles.

TENURE: A term of three years with Australian Government superannuation benefits available.

APPLICATIONS: Stating relevant personal particulars, including details of qualifications and experience, the names of at least two professional referees and quoting reference No A0646, should be directed to:

The Chief
CSIRO Division of Plant Industry
GPO Box 1600
CANBERRA ACT 2601
AUSTRALIA

By 4 weeks from date of publication

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

The National Hellenic Research Foundation invites applications for the position of **DIRECTOR** of the Institute of Organic Chemistry. The applicants must be internationally acknowledged in the field of organic and pharmaceutical chemistry and organic synthesis, including pharmaceutical synthesis and spectroscopy. Applications should be sent to: **M. J. Athanasopoulou, National Hellenic Research Foundation, Vassileos Konstantinou 48, Athens 116 35, Greece.** Deadline is 31 January 1986.

CLINICAL IMMUNOLOGY DIRECTOR

The Clinical Laboratories of Valley Children's Hospital, a College of American Pathologists (CAP) approved tertiary care teaching facility, is accepting applications for the position of director of immunology and research. Candidates should possess a Ph.D. with 3 years of clinical experience.

Please send curriculum vitae complete with salary history and expectations confidentially to: **Stan Schofield, M.S., MT(ASCP), Clinical Laboratories Manager, Valley Children's Hospital, 3122 North Millbrook, Suite A, Fresno, Calif. 93703.**

SCIENTIFIC DIRECTOR OF PHYSICAL AND CHEMICAL OCEANOGRAPHIC DATA FACILITY (PACODF) AT SCRIPPS INSTITUTION OF OCEANOGRAPHY. The facility constitutes one of the most advanced groups specializing in shipboard measurements in physical and chemical oceanography. Programs carried out encompass institutional, national, and international oceanographic programs. The scientific director is expected to spend 50 percent of this time on the scientific direction of this group, with specific responsibilities including development and introduction of new oceanographic techniques, instrumentation, and data processing procedures. For the remaining 50 percent, the candidate is encouraged to pursue independent research in his or her field of expertise. The field of expertise of the candidate can be in physical or chemical oceanography, ocean engineering, or other fields where experience criteria are met. Salary will range between \$40,000 and \$70,000, depending on qualifications based on University of California pay scales. To request further information, address: **Search Committee PACODF, c/o Chairman, Ocean Research Division (S) A030, Scripps Institution of Oceanography, La Jolla, Calif. 92093.** Applications received by 28 February 1986 will be given full consideration. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

The Lineberger Cancer Research Center of the University of North Carolina at Chapel Hill and the School of Medicine are recruiting a scientist with interests in basic, yet novel approaches to cancer therapy. This is a tenure-track appointment at the level of assistant or associate professor in an academic department to be determined by the applicant's discipline. Research areas of interest include, but are not limited to, development of novel targets for chemotherapeutic agents, biological targeting of antitumor agents, combinations of biological and antineoplastic drugs, therapy of experimental tumors, interaction of antineoplastic agents with DNA, and cell membrane as therapeutic target. The faculty member will be housed in the newly constructed Lineberger Cancer Research Center and have access to fully operational common equipment rooms and core facilities. Please send curriculum vitae and three references to: **Dr. Y. C. Cheng, Chairman of the Search Committee and Program Leader, Drug Development Program, Lineberger Cancer Research Center, 237H, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.** *The University of North Carolina is an Affirmative Action/Equal Opportunity Employer.*

IMMUNOLOGIST. A tenure-track position at the assistant professor level is available for a candidate with a research interest in immunochemistry or immunogenetics. Postdoctoral experience, proven research ability, and commitment to graduate and undergraduate teaching in microbiology are required. Salary will be commensurate with experience. Send résumé, a statement of research interests and goals, transcripts of all academic work, and names and addresses of three reference individuals to: **Professor D. E. Talburt, Department of Botany and Microbiology, University of Arkansas, Fayetteville, Arkansas 72701.** Applications will be reviewed beginning 1 February 1986. *The University of Arkansas is an Equal Opportunity/Affirmative Action Institution.*

POSITIONS OPEN

ENVIRONMENTAL IMMUNOTOXICOLOGIST. Tenure-track position at the assistant professor level in the Institute for Environmental Studies, an interdisciplinary unit of the University of Illinois at Urbana-Champaign. Appointment at higher rank is possible for appropriately qualified applicants. Ph.D. degree and demonstrated potential for research productivity required. Emphasis on original research on the molecular or biochemical basis of the effects of environmental agents on the immune system. Teaching in the Environmental Toxicology Graduate Program is required. The individual would be expected to contribute to the ongoing research program in environmental toxicology, to interact with faculty and students in other colleges and departments, and would be eligible for joint appointment in another department. Salary commensurate with qualifications. Send curriculum vitae, brief description of research goals, and three letters of reference to: **Dr. Michael Plewa, Chairman, Immunotoxicologist Search Committee, Institute for Environmental Studies, University of Illinois, 1005 West Western Avenue, Urbana, Ill. 61801.** Position available after 21 August 1986. Closing date 1 March 1986 or until filled. Interviews may be conducted prior to 1 March 1986; however, all applications received by that date will receive full consideration. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION: ASSISTANT PROFESSOR OF PATHOLOGY

The Department of Pathobiology, School of Veterinary Medicine at the University of Pennsylvania is inviting applications for a tenure-track faculty position in pathology, available 1 July 1986. The individual is expected to develop a strong, independent or collaborative research program and will participate in teaching professional and graduate students. Active research areas in the Laboratory of Pathology include neuromuscular development, biochemical regulation of contraction in normal and pathological smooth muscle, pathology of neonatal and genetic diseases of dogs and cats and cellular immunology. Applicants must have a D.V.M./Ph.D. or a Ph.D. degree, excellent training in research methodology, and demonstrated research ability, preferably in a subject complementing one or several existing research areas in the Laboratory of Pathology. Salary is negotiable. Letters of application should be accompanied by curriculum vitae and bibliography, a narrative description for future directions in research, and the names and addresses of three references. Please mail all materials to: **Dr. C. Kirkpatrick, V.M.D., Ph.D., Chair, Search Committee, Department of Pathobiology, School of Veterinary Medicine, 3800 Spruce Street, Philadelphia, Pennsylvania 19104.** The closing date for applications is 30 March 1986 or thereafter, until the position is filled.

The University of Pennsylvania is an Affirmative Action Employer.

OLD DOMINION UNIVERSITY

IMMUNOLOGIST: Department of Biological Sciences invites applications for a tenure-track position at the associate professor or professor level. Applicants should have a Ph.D. and postdoctoral research experience in basic and/or clinical immunology and demonstrated interests in hybridoma technology or reproductive biology. Integrative research collaboration with other biomedical science faculty in an In-Vitro Fertilization Program and Andrology Laboratory are available. Teaching responsibilities would include an introductory course in immunology and one in pathophysiology, with optional development of upper-level graduate courses in candidate's area of specialization. Send curriculum vitae, summaries of current and proposed research, and names of three references by 31 January 1986 to: **Dr. Harold G. Marshall, Department of Biological Sciences, Old Dominion University, Norfolk, Va. 23508.** *Old Dominion University is an Affirmative Action/Equal Opportunity Institution.*

INVERTEBRATE BIOLOGIST—Horn Point Laboratories of the University of Maryland, Center for Environmental and Estuarine Studies, seeks to fill a tenure-track faculty position in invertebrate biology. Specialties of interest include invertebrate biochemistry/nutrition and/or feeding interactions. Salary and rank are dependent on experience. Send résumé, a statement of research interests, and the names of three references by 15 February 1986 to: **Dr. M. R. Roman, University of Maryland, Horn Point Laboratories, Box 775, Cambridge, Md. 21613.** *The University of Maryland is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

FACULTY POSITION UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

The Lineberger Cancer Research Center at the University of North Carolina at Chapel Hill and the School of Medicine are recruiting a basic scientist in chemical carcinogenesis research to be housed in the new Lineberger building in laboratories adjacent to a 3000 nsf chemical carcinogenesis containment facility. Faculty rank for this tenure-track position will be determined by academic record. We seek proven research productivity in cancer biology and carcinogenesis and research plans that emphasize mechanisms by which carcinogens affect cellular regulation. The applicant will be a regular member of an academic department determined by discipline. Please send curriculum vitae and three references to: **Dr. David Kaufman, Program Leader, Carcinogenesis Program, Lineberger Cancer Research Center 237H, University of North Carolina, Chapel Hill, North Carolina 27514.** *The University of North Carolina is an Affirmative Action Equal Opportunity Employer.*

FACULTY POSITION IN AUDITORY PHYSIOLOGY

The Division of Otolaryngology offers a tenure-track position available July 1986 in the Department of Surgery at the University of Connecticut Health Center. Salary and rank commensurate with experience. We seek a neuroscientist with a strong record in original research who will provide leadership in developing the research programs of the division and who will interact positively with the basic hearing research group already established in the School of Medicine. Preference will be given to an experimental physiologist with a commitment to studying the cochlea and cochlear nerve. Send curriculum vitae, representative reprints, summary of research plans, and names of three references to: **Gerald Leonard, M.D., Division of Otolaryngology/Head and Neck Surgery, Department of Surgery, University of Connecticut Health Center, Farmington, Conn. 06032.** Application deadline: February 1986. *An Affirmative Action/Equal Opportunity Employer, M/W/H.*

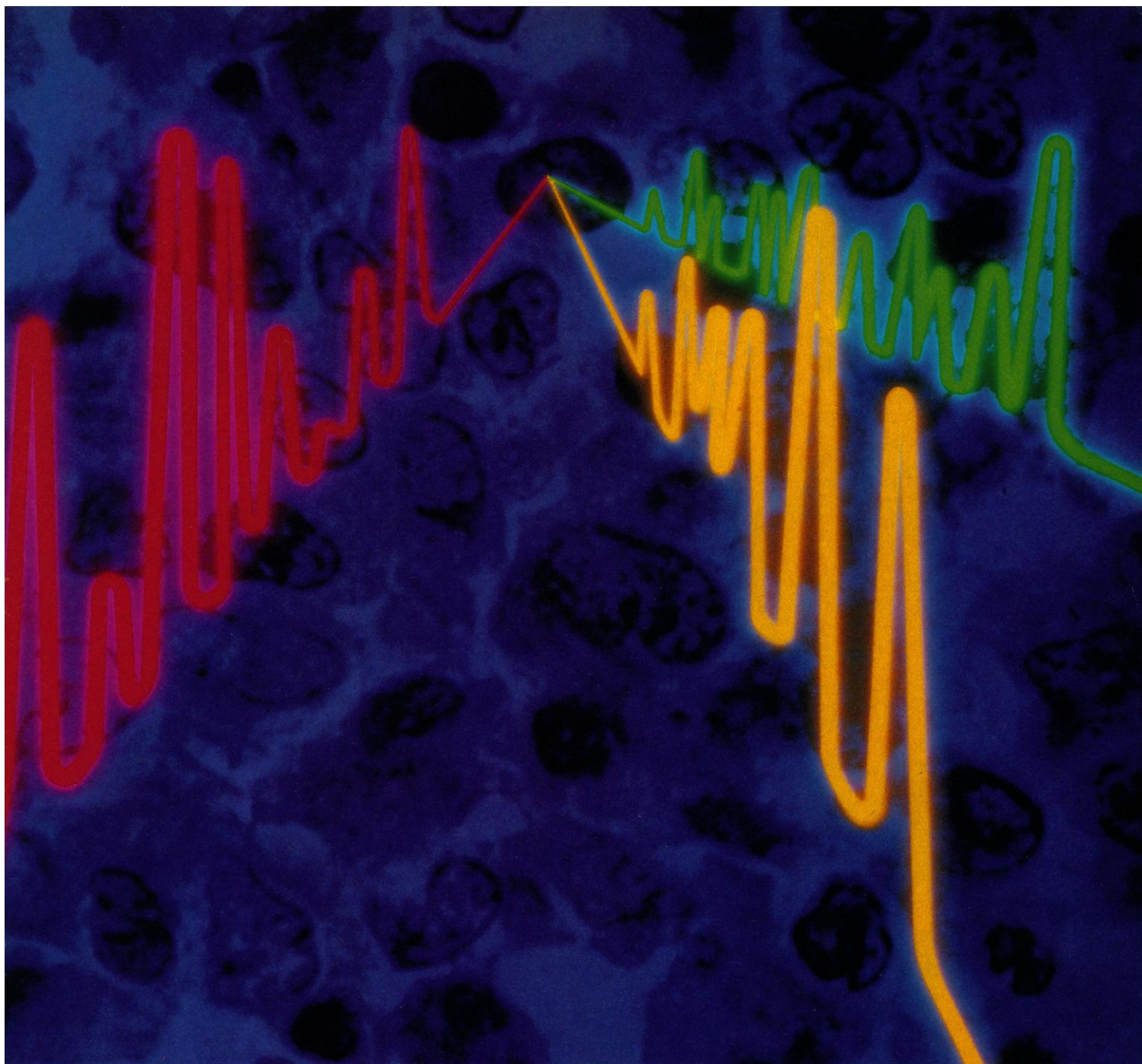
FACULTY POSITION IN MOLECULAR BIOLOGY. The Department of Microbiology at the Medical College of Wisconsin is seeking applicants for a senior faculty position available 1 June 1986. An individual with an established research program in molecular biology of microbial pathogenesis is desired. Teaching responsibilities 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, Wis. 53226.** *Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION—MOLECULAR IMMUNOLOGY: Junior to senior-level tenure-track position in Department of Biology. Candidates should have a strong research program in molecular-cellular immunology and desire to interact with other molecular bioscience and biotechnology faculty. Position includes modern research facilities and exciting teaching opportunities. Send curriculum vitae, a statement of research interests, and a list of three references by 31 January 1986 to: **Immunology Search Committee, Department of Biology, Williams Hall 31, Lehigh University, Bethlehem, Pa. 18015.** *Lehigh University is an Equal Opportunity/Affirmative Action Employer.*

GENETICIST/MICROBIOLOGIST

Indiana University of Pennsylvania invites applications for a tenure-track position at the entry level starting September 1986; salary: \$18,200 to \$24,200. Ph.D. preferred. Ph.D. pending applicants will be considered. Commitment to quality teaching and research required. Preference given to individuals with a strong background in molecular genetics. Primary responsibilities include lectures and laboratories in genetics and microbiology. *Minority applicants are encouraged to apply.* Submit résumé, undergraduate and graduate transcripts, statement of research plans, and three letters of recommendation to: **Dr. Frank T. Baker, Search Committee Chair, Biology Department, Indiana University of Pennsylvania (IUP), Indiana, Pa. 15705.** Application deadline: 1 March 1986. Telephone: 412-357-2706.

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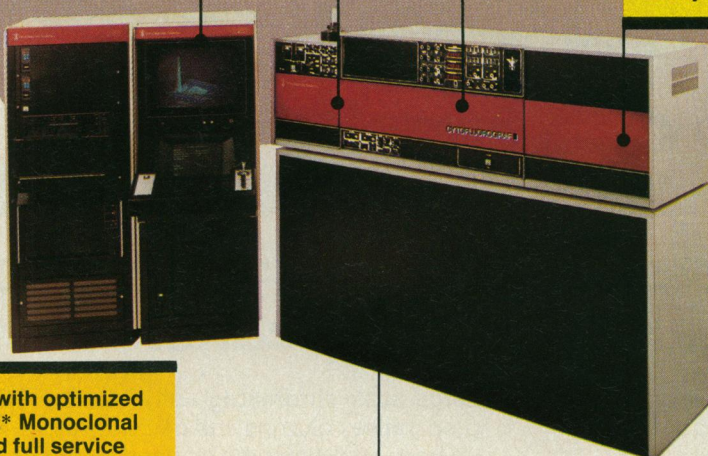
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ORTHO SPECTRUM III* Laser Flow Cytometry System;

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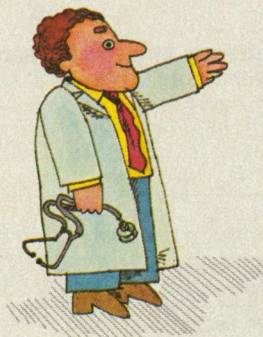
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Raritan, New Jersey 08869

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Ortho Diagnostic Systems: at the leading edge in flow cytometry

NOW AVAILABLE...

Opioid Ligands Highly Selective for the Kappa Receptor.

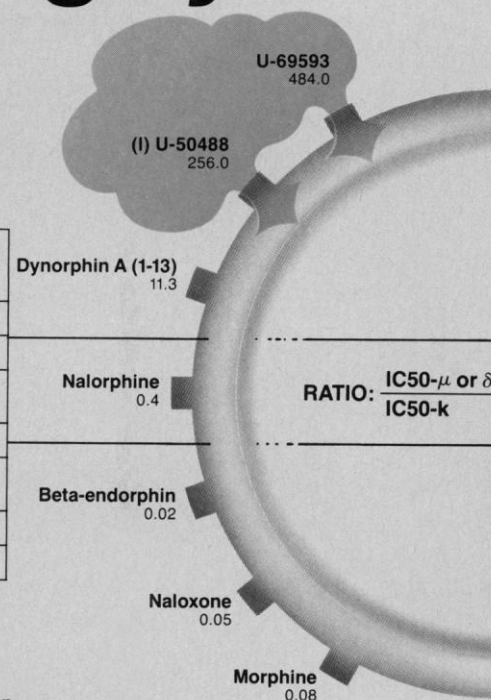
Competitive binding studies of U-50488 and U-69593 indicate the highest specificity for binding at the kappa site of any compound obtainable.

MOLAR IC50 RATIOS DEMONSTRATE HIGH KAPPA SELECTIVITY.

Simultaneous low affinity for the mu receptor allows more accurate research into kappa effects. **For more information, circle the reader service number or call (616) 385-7111.**

Compound	IC50 (nM) Values		Ratio IC50- μ or δ IC50-k
	mu-delta	Kappa	
U-69593	4600	9.5	484.0
(I) U-50488	1900	7.4	256.0
Dynorphin A (1-13)	43.0	3.8	11.3
Nalorphine	7.4	18	0.4
Beta-endorphin	5.0	230	0.02
Naloxone	8.2	160	0.05
Morphine	27.0	335	0.08

Ref. Lahti, R.A., et al. *European Journal of Pharmacology*, 109, 281-284, 1985.



Upjohn diagnostics

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For research use only. Not for use in human therapeutic or diagnostic procedures.

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Try the New "Easier-to-Use" & Sensitive Rat Atriopeptin III Assay.

Now, measure rat atrial peptide concentrations in studies of atrial blood pressure regulation with the new, simple Rat Atriopeptin III RIA Kit (¹²⁵I) from Upjohn Diagnostics.

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Provides sensitive detection. Equivalent cross-reactivity with Atriopeptin I, Atriopeptin II, Atriopeptin III and Atrial Natriuretic Peptide. And, high Bo/T provides high resolution of atriopeptide levels.

Capable of equilibrium and non-equilibrium formats for optimal measurement at different sensitivity levels.

To order or inquire about the new Atriopeptin III Assay Kit, circle reader service number 335, or call 616-385-7111.

Cross Reactivity of Different Atrial Natriuretic Peptide Sequences with Rabbit Anti-rAP III Antibody

Name	Cross Reactivity
Rat Atriopeptin III	100%
Rat Atriopeptin II	72.3%
Rat Atriopeptin I	84.9%
α-Rat Atrial Natriuretic Peptide (1-28)	80.1%
α-Rat Atrial Natriuretic Peptide (13-28)	<1%
α-Rat Atrial Natriuretic Peptide (18-28)	<1%
α-Rat Atrial Natriuretic Peptide (1-11)	<1%
α-Human Natriuretic Peptide	3.3%

Upjohn diagnostics

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For research use only. Not for use in human therapeutic or diagnostic procedures.

South Pacific Region Agricultural Development Project (SPRAD), Hawaii Institute of Tropical Agriculture & Human Resources (HITAHR), recruiting for the following temporary faculty positions. All positions are full-time, non-tenure, will begin 10/1/86, pending Project extension and federal fund availability, and will locate at SPRAD Project site at the University of the South Pacific (USP) campus in Western Samoa, serving 11 member nations. Salaries commensurate with experience.

Fellow in Information Resources/Library, (12-months):

DUTIES: Strengthen the USP agriculture library and information outreach function; develop the library as an information delivery unit on campus and in the South Pacific region. Tasks: (1) increase library capacity to access and provide agricultural information; (2) specialized training of Agricultural Information Network personnel and others, and (3) guidance to library staff re program development and the role of the library.

QUALIFICATIONS: PhD in Library or Information Science or related field (or MLS degree plus 5 years experience organizing/managing info delivery systems); 4 years experience related to tropical agric; 1 year overseas; knowledge of relevant data bases; proven ability to foster outreach information services to clientele as part of library, or extension services. Excellent interpersonal and communication skills. **DESIRABLE:** Living/working experience in the South Pacific region; background in land-grant system of research/extension.

CLOSING DATE: 1/30/86 or until acceptable candidate found.

Fellow in Program Management, (12-months):

DUTIES: Assist senior staff at the USP to define processes to better plan, implement, coordinate and evaluate agricultural programs for research, extension and teaching. Assist to: identify and establish institutional links; design/implement professional development for faculty/staff; and develop info support for human, financial and physical resource management at the agric campus.

QUALIFICATIONS: PhD in agric, educational administration or related field plus 4 yrs experience; 2 yrs experience in educational management with demonstrated development capability including resource allocation and staff development. Skills in organizational change/program innovation. Excellent interpersonal and communications skills. Minimum 4 yrs involvement in agricultural program development/implementation. Demonstrated commitment to tropical developing countries; 1+ year resident overseas experience in international development. **DESIRABLE:** Experience in managing teaching, research and extension programs; living/working experience in the South Pacific; familiarity with land-grant programs.

CLOSING DATE: 1/30/86 or until acceptable candidate found.

Fellow in Agricultural Engineering, (24-months):

DUTIES: Leadership in research/extension program in applied agricultural engineering; resource person and teach undergraduates, with emphasis on agricultural mechanics; conduct training for agriculturalists in the region.

QUALIFICATIONS: PhD in Agricultural engineering or closely related field, plus at least 3 years college faculty experience; or MS plus 1 year of graduate work beyond MS degree plus at least 4 years college faculty experience. Demonstrated research, teaching and extension skills, and commitment to solving problems in developing countries; minimum 1 year experience in a developing country; excellent interpersonal/communication skills. **DESIRABLE:** Land-grant experience with integrated program of teaching, research and extension; 2+ years experience in international agriculture.

CLOSING DATE: 2/8/86 or until acceptable candidate found.

TO APPLY: Send application letter, resume and 3 reference letters to **Dr. Ada Demb, Assistant Director HITAHR, University of Hawaii, 3050 Maile Way, Honolulu, HI 96822.**

AUSTRALIA

CSIRO

RESEARCH FELLOW

(REMOTE SENSING OF ATMOSPHERIC CONSTITUENTS)

\$26,001-\$38,243

DIVISION OF ATMOSPHERIC RESEARCH

ASPENDALE VIC

GENERAL: The Division of Atmospheric Research has a staff of 130 including 70 professional scientists and undertakes research into physical and chemical aspects of atmospheric phenomena and related areas.

The Atmospheric Constituents Program is concerned with the composition and chemistry of the atmosphere on a global, regional and local scale with particular reference to constituents relevant to climate change and atmospheric pollution. The successful applicant will be a member of this program but will be required to interact closely with members of the Clouds and Radiation program of the Division which is active in remote sensing and lidar studies.

DUTIES: To initiate a research and development program in the remote sensing of atmospheric constituents which reflects the existing status of this field internationally, potential applications of the techniques, and the feasibility and appropriateness of CSIRO's involvement in this field. While these represent the overall objectives of the appointment, there will be considerable freedom for the appointee to pursue his/her own ideas.

QUALIFICATIONS: A PhD degree or equivalent qualifications in Physics or Chemistry plus proven research ability. Experience in infrared spectroscopy, remote sensing, laser and space technology or satellite instrumentation would be advantageous.

TENURE: A term of 3 years, with the possibility of a further term of 2 years. Australian Government superannuation benefits available.

APPLICATIONS: Stating relevant personal particulars, including details of qualifications and experience, the names of at least two professional referees and quoting reference No A1825, should be directed to:

The Chief
CSIRO Division of Atmospheric Research
Private Bag No 1
Mordialloc VIC 3195

By 4 weeks from date of publication

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER

Staff Research Scientist

Reporting to the Principal Investigator, will be facility manager of the National Tritium Labeling Facility. Responsible for the day-to-day operation of the facility including technical and administrative management duties. Participate in the core research and contribute to research planning. Must have a record of research achievement in the area of tritium chemistry including: radiosynthesis, novel methods of introducing tritium into complex molecules, isotope effects to elucidate reaction mechanisms, and high levels of tritium in various forms. Requires demonstrated research leadership in radioisotope chemistry and its applications in the biochemical/biomedical field. Managerial experience is highly desirable. Prefer a Ph.D. in Organic, Physical Organic or Biochemistry. Job #A/3614.

Research Scientist

Carry on assigned research projects in tritium labeling reaction mechanisms and radiopurification. Generate ideas for tritium research and improved service. Operate all research and service equipment in the laboratory. Experience in all modern chromatographic techniques is essential. Must have background in synthesis of and application of high levels of radioisotopes, preferably tritium, to biochemical/biomedical problems. Requires working knowledge of spectroscopic methods with emphasis on NMR Radiochromatography experience is desirable. Prefer a Ph.D. in Organic or Physical Organic Chemistry. A record of publications in these areas is highly desirable. Job #A/3613.

Postdoctoral Fellow

One year term appointment with possibility of renewal. Conduct research and provide service in the area of analysis and purification of high specific activity tritium labeled compounds. Make extensive use of all forms of radiochromatography and tritium NMR Spectrometry. Requires working knowledge of NMR and ^3H , ^2H and ^1H probes. Prefer experience with modern chromatographic techniques, radiolabeling and radiopurification involving high levels of tritium. Publications in the above areas desirable. Requires Ph.D. in Organic or Physical Organic Chemistry. Job #A/3612.

Send two copies of resume to **Lawrence Berkeley Laboratory, Employment Office 90-1042, 1 Cyclotron Road, Berkeley, CA 94720.** Please specify the Job Number of the position for which you are applying. An Equal Opportunity Employer M/F/H.



LAWRENCE
BERKELEY
LABORATORY

POSITIONS OPEN

FACULTY POSITION IN VIROLOGY

The Department of Virology and Epidemiology, Baylor College of Medicine, invites applications for a tenure-track position in a research-oriented department. Candidates should have a strong foundation in animal virology and be qualified to establish an independent, high-quality research program in **MOLECULAR VIROLOGY** and to contribute to the departmental graduate program. Appointment will be made at the assistant professor level. Applicants should have a Ph.D. or M.D. degree and postdoctoral training. Interested persons should reply by 15 January 1986, by sending curriculum vitae, statement of research interests, and the names of three references to: **Dr. Janet S. Butel, Search Committee, Department of Virology and Epidemiology, Baylor College of Medicine, One Baylor Plaza, Houston, Texas 77030. Baylor College of Medicine is an Equal Opportunity Employer.**

EASTERN CONNECTICUT STATE UNIVERSITY WILLIMANTIC, CONNECTICUT 06226

GENETICIST. Tenure-track assistant professor position to begin August 1986. The candidate will teach introductory and advanced level undergraduate courses, supervise undergraduate research, and maintain a program of professional development. Ph.D. and commitment to teaching excellence is required. Salary negotiable. Individuals with a background in plants are encouraged to apply. Submit résumé, official transcripts, three letters of reference, and salary history to: **Dr. Martin A. Levin, Department of Biology, Eastern Connecticut State University, Willimantic, Conn. 06226-2295.** Closing date: 20 January 1986.

Eastern Connecticut State University is an Affirmative Action/Equal Opportunity Employer.

A full-time **INVESTIGATOR** is being sought to conduct independent and collaborative neuroscience research in the area of Alzheimer's disease and/or cerebrovascular disease. The assistant professor position (nontenure track) is in Department of Neurology, University of Minnesota, at St. Paul-Ramsey Medical Center (SPRMC). The investigator will have access to a variety of resources, including the nation's largest human dementia brain bank and human brain neuron cultures. Position is available immediately with salary range for the first year from \$21,000 to \$30,000, depending upon experience. Applicants must have Ph.D. in biochemistry, neurochemistry, or closely related area and a proven record of productivity. Send curriculum vitae and two letters of reference to: **Dr. Bruce Snyder, Chairman, Department of Neurology, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, Minn. 55101** by 1 February 1986. *SPRMC and University of Minnesota are Equal Opportunity Educators and Employers and specifically invite and encourage applications from women and minorities.*

MOLECULAR BIOLOGIST

Tenure-track assistant or associate professor position beginning 3 September 1986. Develop and teach a 1-year course sequence (three quarters) in the area of **biotechnology**, plus additional courses appropriate to doctoral and postdoctoral experience. Ph.D. with postdoctoral or research experience in **recombinant DNA** techniques required. Send curriculum vitae, transcripts, and three to five letters of reference to: **W. L. Ezell, Department of Biological Sciences, St. Cloud State University, St. Cloud, Minnesota 56301, by 25 January 1986. An Equal Opportunity Affirmative Action Employer.**

MOLECULAR BIOLOGY, ASSISTANT/ASSOCIATE PROFESSOR. The Department of Biology, State University of New York (S.U.N.Y.) College at Fredonia, seeks applicants for a readvertised tenure-track position for fall 1986 in the area of molecular biochemistry to biochemical gene technology. Primarily undergraduate teaching duties include a junior-level biochemistry lecture, a senior-level recombinant gene technology laboratory course, and a lower level biotechnology course. The successful applicant is expected to participate in advisement and administration of the departmental recombinant gene technology major for undergraduates and to supervise research students. Teaching experience and a demonstrated ability to conduct independent research in protein and nucleic acid biochemistry are required. Send curriculum vitae to: **Search Committee, Department of Biology, S.U.N.Y. College at Fredonia, Fredonia, New York 14063.** Application deadline is 17 January 1986. *The State University of New York is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

MEDICINAL CHEMIST. Postdoctoral fellow in radiopharmaceutical research position for design, synthesis, and testing of radioactive drugs. Salary: \$18,000. Requires background in synthesis, with strong instrumentation skills. Experience with experimental animals and radioactive materials is desirable. Send application and three letters of recommendation to: **Dr. L. Spitznagle, Department of Nuclear Medicine, University of Connecticut Health Center, Farmington, Conn. 06032.** *An Affirmative Action/Equal Opportunity Employer, M/W/H.*

MICROBIOLOGIST, long-term renewable contract. Ph.D. expected; A.B., teaching and/or research experience required. Expected to teach microbiology, drugs and personal health, general biology/zoology laboratories, and/or interdisciplinary course beginning 1 September 1986. Salary, competitive. Send letter of application, curriculum vitae, transcripts, and three references by 1 March to: **Dr. Darold M. Wolff, Department of Biology, Wartburg College, Waverly, Iowa 50677.**

Ph.D. MICROBIOLOGY

Connaught Laboratories, Inc., a leading producer of human vaccines, has a unique opportunity for a recent Ph.D. We seek an individual with high scholastic achievement and an interest in participating in a manufacturing training program, leading to a position of responsibility. This will be a career opportunity in biological manufacturing administration through a systematic training cycle in all aspects of manufacturing.

Connaught is located in the Pocono Mountain region of northeastern Pennsylvania. We offer a progressive salary and comprehensive benefit package. To apply, submit curriculum vitae to: **J. M. Occhipinti, Employee Relations Coordinator, Connaught Laboratories, Inc., Swiftwater, Pa. 18370.**

MOLECULAR BIOLOGIST

The **Biology Department, Creighton University**, seeks a faculty member with expertise in the developmental/genetic control mechanisms of eukaryotes. The successful candidate must hold a Ph.D. degree, have a strong commitment to independent, continuing research, and an enthusiastic instructional program. Initially, the candidate will be responsible for presentation of contemporary nucleic acid methodology in suitably integrated upper-division laboratory courses. Ultimately, the selected individual will be expected to teach a semester of the general biology course as a part of the normal teaching load (currently four courses over two semesters). Participation in the graduate program (M.S.) is requisite.

This tenure-track, 9-month appointment will be at the assistant professor level, with summer teaching a possibility. Application materials must be received by 31 January 1986. Applicants should send curriculum vitae, transcripts, and the names and addresses of three references to:

**Search Committee
Department of Biology
Creighton University
Omaha, Neb. 68178
Telephone: 402-280-2811**

Creighton University is an Affirmative Action/Equal Opportunity Employer.

MOLECULAR OR CELLULAR IMMUNOLOGIST

West Virginia University Medical Center

The Department of Microbiology of the West Virginia University Medical Center announces a full-time, tenure-track position opening at the assistant or associate professor level. The department invites applications from candidates with active research interests in molecular or cellular immunobiology. Candidates should hold a Ph.D. or equivalent degree and have a minimum of 2 years of postdoctoral experience. The successful applicant will be expected to establish and maintain a strong extramurally funded research program and participate in medical and graduate student teaching programs in the department.

Applicants should submit their curriculum vitae, current bibliography, summary of research interests, and names of at least three persons who will serve as professional references to: **Dr. Kenneth S. Landreth, Department of Microbiology, West Virginia University Medical Center, Morgantown, West Virginia 26506.** Deadline for receipt of applications is 30 January 1986. *West Virginia University is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

MOLECULAR ENDOCRINOLOGIST. Tenure-track position for September 1986 at assistant or associate professor level, Ph.D. with postdoctoral experience. Candidate must establish a strong research program and participate with other faculty in research and teaching activities. Expertise in cellular and molecular aspects of membrane-mediated endocrine mechanisms, such as cardiac cell receptors, neurotransmitter-receptor biochemistry, receptor-mediated endocytosis, or brain peptide receptors. Send curriculum vitae, names of three references, three representative publications, and statement of research goals by 15 January 1986 to: **Chair, Endocrinologist Search Committee, Biology Department, San Diego State University, San Diego, Calif. 92182.** *An Affirmative Action/Equal Opportunity Title IX Employer.*

MOLECULAR GENETICISTS. The Department of Biological Science of Florida State University (FSU) is seeking two molecular geneticists for assistant professor-level, tenure-track positions commencing August 1986. Preference will be given to applicants using recombinant DNA technology to study problems complementing areas of current strength within the department including, but not limited to, plant molecular biology, regulation of gene expression, cellular and developmental biology, immunology, molecular parasitology, and microbiology. The successful applicants will be expected to develop vigorous research programs. Primary teaching duties will be in undergraduate genetics and graduate teaching in the candidate's area of interest. Send curriculum vitae, selected reprints, a brief statement of research interests, and three letters of recommendation by 1 February 1986 to: **Dr. J. Herbert Taylor, Chair, Search Committee, Department of Biological Science, Florida State University, Tallahassee, Fla. 32306.** *FSU is an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR VIROLOGIST

The New York State College of Veterinary Medicine at Cornell University announces a faculty position for a molecular virologist with training and experience with the *hepadna* virus and *retrovirus* groups. The individual will be responsible for the molecular biological aspects of an ongoing viral hepatitis research program, for development of independent research, and for teaching part of a graduate level course on the use of recombinant DNA technology in biomedical research. The Ph.D. degree in molecular biology and 3 years of postdoctoral research experience are essential. It is expected that the appointment would be as an assistant professor of molecular biology in the Department of Clinical Sciences. Salary will be commensurate with scientific and academic experience. The appointment will be for a period of 3 years with reappointment fully dependent upon the continuation of extramural research funding. Interested candidates should submit a résumé and names of three references to: **Dr. Alexander deLahunta, Chairman, Department of Clinical Sciences, New York State College of Veterinary Medicine, Cornell University, Ithaca, New York 14853.** *Cornell University is an Affirmative Action/Equal Opportunity Employer/Educator.*

NEUROSCIENTIST

The Armed Forces Institute of Pathology is seeking a research neuroscientist to serve as distinguished scientist for the Yakovlev Collection of whole brain serial sections. The candidate will be expected to develop and direct research programs, to be supported by external funds, using resources in and/or to augment the collection. An M.D. and/or Ph.D. degree is required. Interested candidates should forward a statement of qualifications, interests and plans for the position, curriculum vitae and list of publications, and three letters of recommendation to:

**Robert R. McMeekin, M.D., COL, MC,
The Director
Armed Forces Institute of Pathology
Washington, D.C. 20306-6000**

Application deadline is 30 January 1986.

ONCOLOGIST/RESEARCHER—Must have a significant clinical commitment to an oncology subspecialty. Research background, preferably in applications of monoclonal antibodies or other biological modifiers to clinical problems. Suited to collaboration with strong basic science group recently developed at the University of New Mexico Cancer Center. Rank depends on qualifications. Send curriculum vitae, representative reprints, statement of interests and research goals to: **Thomas Tomasi, M.D., Ph.D., Director, Cancer Center, Chairman, Department of Cell Biology, University of New Mexico, Albuquerque, N.M. 87131.**



The Ohio State University Postdoctoral Fellowships beginning September 1986 are available in all academic fields. Tenure is for one or two years. The stipend for a twelve month appointment is \$21,000 with a \$500 allowance to help cover the cost of relocation to Columbus. An additional \$500 allowance is available during the period of the award to help defray the cost of travel to scientific/professional meetings.

Nominations are submitted to the Graduate School by members of The Ohio State University graduate faculty. The deadline for departmental nominations is **February 15, 1986**.

Candidates must have received the Ph.D. degree, or comparable professional degree, within the past five years. Contact a member of the OSU faculty or send a resume and description of your research interest which will be forwarded to the appropriate department.

Roy A. Koenigsnecht
Dean of the Graduate School
The Ohio State University
230 North Oval Mall, #250
Columbus, Ohio 43210

An Affirmative Action/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 genes.

Applicants should be familiar with recombinant DNA procedures in prokaryotes. 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 generous.

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

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



We are a leading manufacturer and worldwide distributor of pharmaceutical products. At this time an excellent opportunity is available for a Scientist interested in pursuing a career with a company at the forefront of plasma research.

RESEARCH SCIENTIST

Successful candidate will be involved in process development and scale-up from R & D and/or Pilot Plant through Manufacturing. Will also modify process documentation to fit manufacturing requirements and limitations as needed. An advanced degree in Biochemistry or Biochemical Engineering is required along with 1-2 years experience in protein fractionation, scale-up and experimental design. Strong analytical techniques are necessary.

We offer an attractive compensation and benefit package, complemented by a challenging and stimulating environment. For immediate consideration please send resume to **Dennis Bartolotta, Manager of Employee Relations, Alpha Therapeutic Corporation, 5555 Valley Blvd., Los Angeles, CA 90032**. We are an equal opportunity employer m/f.

PROTEIN CHEMIST

Sigma Chemical Company is seeking a qualified Chemist/Biochemist to participate in product development, production and analysis. The qualified candidate (BS, MS, or PhD) must have an extensive background in protein chemistry, including protein purification, characterization, modification and sequence analysis. Experience in HPLC, amino acid analysis, analytical instrumentation and drug analysis is desirable. Strong verbal and written skills are essential. Salary and benefits are commensurate with experience. Interested applicants should send resume, including salary history and expectations to:

**SIGMA CHEMICAL COMPANY
William Kappel, PhD
P.O. Box 14508
St. Louis, MO 63178**

Equal Opportunity Employer

AUSTRALIA

CSIRO

RESEARCH APPOINTMENTS (LIDAR SOUNDING OF THE ATMOSPHERE) (2 POSITIONS)

\$26,001-\$38,243

DIVISION OF ATMOSPHERIC RESEARCH ASPENDALE VIC

GENERAL: The Division of Atmospheric Research has a staff of 130 including 70 professional scientists and undertakes research into physical and chemical aspects of atmospheric phenomena and related areas.

The Clouds and Radiation Programme is concerned with the atmosphere and in particular with the interaction of the radiation with clouds and dust and with the surface. The program employs laser radar (lidar) to make observations on clouds and other atmospheric constituents from the ground and also employs a sophisticated facility to study cloud and surface properties from satellite radiance data. The Clouds and Radiation group is developing strong links with industry in the commercial exploitation of some of the instrumentation developed with the group.

DUTIES: To take a major role in the future development of the lidar programme and in particular in a research programme aimed at using the Division's incoherent infrared lidar for measurement of atmospheric constituent gases, for monitoring of dust and other pollutants in industrial areas and for measurement of cloud heights and visibility. In the longer term there is the likelihood of the development of coherent lidar for the measurement of wind and atmospheric constituents from space. There will be considerable scope for the candidate's own ideas and initiatives within the general programme.

QUALIFICATIONS: A PhD degree or equivalent qualifications in physics plus proven research ability. Experience in lidar, radiation transfer, or spectroscopy would be an advantage, but applications from individuals in other areas of experimental physics are also encouraged.

TENURE: Position A1198. Indefinite with Australian Government superannuation benefits available. Position A1832. A term of 3 years with possibility of a further term of 2 years. Australian Government superannuation benefits available.

APPLICATIONS: Stating relevant personal particulars, including details of qualifications and experience, the names of at least two professional referees and quoting reference Nos 1832 and A1198, should be directed to:

**The Chief
CSIRO Division of Atmospheric Research
Private Bag No 1
Mordialloc Vic 3195**

By 4 weeks from date of publication

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

PHARMACOLOGY/PATHOPHYSIOLOGY

Tenure-track position starting August 1986. Teaching responsibility includes instruction in above areas for undergraduate students in nursing, physical therapy, and other programs. Doctoral degree and teaching experience in these areas required. Send curriculum vitae, plus names and addresses of three references to: **P. D. Kindschi, Dean of Science and Mathematics, Grand Valley State College, Allendale, Mich. 49401**, by 1 February 1986. *An Affirmative Action/Equal Opportunity Employer.*

PLANT MOLECULAR BIOLOGISTS

The Department of Botany, University of Minnesota, invites applications for as many as three tenure-track positions at the assistant or associate professor level beginning fall 1986. Rank will be decided based on professional qualifications. Preference will be given to candidates who can document abilities in molecular approaches to research on gene regulation. Areas of special interest may include cell, developmental, or evolutionary biology of plants. Applicants for assistant professor must have a doctorate, a minimum of 1 year of postdoctoral training, and a strong background in biochemistry and molecular biology. Applicants for associate professor must have a doctorate, a minimum of 4 years of professional experience, a demonstrated ability to develop an independent research program in molecular biology, and a strong record of publication. Responsibilities include development of a creative and vigorous research program in plant molecular biology and participation in undergraduate and graduate level teaching in plant cell, developmental, or molecular biology or plant physiology. Applicants must submit curriculum vitae, graduate transcripts, reprints of research articles, and a statement of professional goals/research interests, and arrange for three letters of reference to be sent to: **Dr. David D. Biesboer, Search Committee Chair, Department of Botany, 220B Biological Sciences Center, University of Minnesota, St. Paul, Minn. 55108**. The deadline for receipt of all application materials is 31 January 1986. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

PLANT MOLECULAR BIOLOGY

Postdoctoral research position available to study regulation of protein biosynthesis and deposition in economically important crop plants. Ongoing basic research on transcriptional and translational regulatory mechanisms, chimeric gene construction, and topogenesis of fusion proteins in direct collaboration with agri-food industry programs. Background in molecular genetics or experience with inducible promoters and plant transformation is preferable. Excellent salary, commensurate with experience. Please send curriculum vitae and names of three references to: **Dr. I. Altosaar, Department of Biochemistry, School of Medicine, University of Ottawa, 40 Somerset Street East, Ottawa, Ontario, Canada K1N 9B4**. *Equal Opportunity Employer, but immigration regulations accord Canadian applicants preference.*

PLANT SYSTEMATIST, tenure-track, level of appointment dependent upon experience; fall 1986; Ph.D., active research program required, postdoctoral experience desirable; research interest in angiosperm systematics, phylogenetic systematics. Send curriculum vitae, research and teaching statement, three representative publications, and names of three referees to: **Chairperson, Plant Systematist Search Committee, Department of Biology, San Diego State University, San Diego, Calif. 92182**. Applications accepted until 1 February 1986. *SDSU is an Affirmative Action/Equal Opportunity Employer.*

The Department of Botany, Iowa State University, invites applications for a tenure-track position at the assistant professor level. This position for a **PLANT TAXONOMIST** with interest and research experience in the taxonomy of the Gramineae begins on 21 August 1986 and has a minimum salary of \$24,000. Development of a strong research program and participation in the department's graduate program are expected. Teaching responsibilities will include courses in plant taxonomy and agronomy, and possible participation in introductory biology. Applicants must have a Ph.D. Curriculum vitae, statement of research and teaching interests, reprints of publications, and names, addresses, and telephone numbers of at least three references should be sent to: **Dr. R. C. Coolbaugh, Chair, Department of Botany, Iowa State University, Ames, Iowa 50011**, by 1 February. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

PHYSIOLOGICAL PSYCHOLOGY—SMITH COLLEGE: A non-tenure-track appointment as assistant professor in the Department of Psychology beginning in September 1986 for a nonrenewable 3-year term. Smith College is a liberal arts institution dedicated to excellence in undergraduate education for women, and seeks candidates with a Ph.D. in psychology who can successfully combine a strong interest in teaching with the ability to establish and pursue a program of research. Teaching assignments will include introductory and advanced courses in physiological psychology, and general introductory courses in psychology. Excellent research facilities and some starting-up funding are available. Submit curriculum vitae, including a statement describing teaching and research experience and interests, reprints of publications and preprints of current work, and three letters of recommendation to: **Dr. Faye Crosby, Search Committee, Department of Psychology, Smith College, Northampton, Mass. 01063**. All documents must be received before 31 January 1986. *Smith College is an Equal Opportunity Employer.*

POSTDOCTORAL FELLOW to work on projects related to T cell responses to bacterial polysaccharides. Previous experience with tissue culture required. Apply to: **Robert Finberg, M.D., Chief, Laboratory of Infectious Diseases, Dana-Farber Cancer Institute, 44 Binney Street, Boston, Mass. 02115**. Telephone: 617-732-3514.

POSTDOCTORAL POSITION

Position available immediately to study the biochemistry of transport and receptor coupling in cardiomyocytes. Highly motivated candidates should have background in any one of the following areas: membrane transport, purification of membrane proteins, receptor characterization, or phospholipids. Position is renewable annually up to 3 years. Salary will be commensurate with experience. Submit curriculum vitae, summary of research experience, and letters of reference to: **Dr. H. D. Kim, Department of Pharmacology, School of Medicine, M-517B Medical Sciences Building, University of Missouri-Columbia, Columbia, Mo. 65212**. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION

The University of Kentucky College of Medicine has an immediately available postdoctoral position in the Department of Medical Microbiology and Immunology for individuals interested in pulmonary immunology. Emphasis will be in cellular interactions in the pulmonary immune response as relates to macrophage-T cell interactions and T cell-B cell interactions in both normal and functionally compromised lung tissue. This is an opportunity to join a well-funded, active cellular and molecular immunology group comprised of seven faculty, nine postdoctoral fellows and thirteen predoctoral students. This position is for a 2-year minimum and salary is competitive. Send curriculum vitae and three letters of reference to: **Dr. Alan M. Kaplan, Chairman, Department of Medical Microbiology and Immunology, University of Kentucky College of Medicine, Room MS 409, Lexington, Ky. 40536-0084**.

POSTDOCTORAL POSITIONS (two) available immediately. Join an active research team studying regulation of gene expression during induced differentiation of tumor cells in vitro. Position (i) will involve cloning of genes for proteins that appear on the surface of human tumor cells soon after exposure to tumor promoters and/or inducers of differentiation. Preference will be given to candidates with experience in recombinant DNA technology. Position (ii) will involve establishment of culture systems and assays suitable for studying differentiation of cells derived from mouse mammary tumors. Experience in tissue and/or organ culture required. Funding for 2 years. Salary: \$20,000. Send résumé and names of three references to: **Dr. Judith Christman, Department of Biochemistry, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, N.Y. 10029**. *Equal Opportunity Employer.*

POSTDOCTORAL POSITION available summer 1986 to work on the characterization of plant nuclear genes encoding chloroplast proteins. Research will involve either *Agrobacterium*-mediated transformation studies aimed at characterizing nucleotide sequences which mediate light-induction or transformation and in vitro studies aimed at characterizing the import of polypeptides into chloroplasts. Experience in molecular biology is desirable. Send curriculum vitae and three letters of reference to: **Anthony R. Cashmore, The Rockefeller University, Laboratory of Cell Biology, 1230 York Avenue, New York, N.Y. 10021**.

POSITIONS OPEN

POSTDOCTORAL POSITION (NIH institutional training grant, Dermatology) to support research on growth regulation by epidermal growth factor, its receptor and postreceptor steps controlling mitogenesis. The approaches involve techniques of cell biology, biochemistry, and molecular biology. Opportunities exist for collaboration with several intramural programs. Inquiries or applications, including curriculum vitae, and the names of three references, should be addressed to: **Dr. Graham Carpenter, Departments of Biochemistry and Dermatology, Vanderbilt University, School of Medicine, Nashville, Tennessee 37232**; telephone 614-322-6678.

POSTDOCTORAL POSITION (Available immediately): For research in alcohol and hormone effects on carbohydrate metabolism in vivo and in vitro. Salary approximately \$20,000. Reply to: **Dr. Joseph Katz, Cedars-Sinai Medical Center, 8700 Beverly Boulevard, Los Angeles, Calif. 90048**. *Equal Opportunity Employer.*

POSTDOCTORAL POSITION to study (i) purification of the growth hormone receptor and growth hormone induced conversion of preadipocytes to adipocytes and (ii) the relationship between conformational changes in the insulin receptor and transmembrane signaling. Experience in cell culture and membrane biochemistry desirable.

Send curriculum vitae and names of three references to: **Dr. David B. Donner, Memorial Sloan-Kettering Institute, 1275 York Avenue, New York, N.Y. 10021**.

POSTDOCTORAL POSITION FOR PH.D. IN BIOCHEMISTRY or related field for project involving purification of human tumors, associated antigens, and development of hybridoma monoclonal antisera. Experience with tissue culture required; experience with hybridoma or protein purification techniques desirable. Reply with curriculum vitae to: **Elliot Alpert, M.D., Department of Medicine/GI Section, Baylor College of Medicine, One Baylor Plaza, Houston, Texas 77030**.

POSTDOCTORAL POSITION CONIFER CELL AND TISSUE CULTURE

The Institute of Paper Chemistry is seeking a postdoctoral scientist to participate in the multidisciplinary research program on regeneration of loblolly pine and Douglas fir via somatic embryogenesis. The candidate must have a Ph.D. in botany, plant physiology, or a related field with emphasis in plant cell and tissue culture, preferably on somatic embryogenesis. Previous experience in conifer cell and tissue culture not necessary. The Institute of Paper Chemistry is an accredited independent graduate school and research center in the natural sciences and engineering, supported by the paper industry for over 55 years. We conduct our research in an open, academic-like environment which strongly encourages publication and interaction with other scientists throughout the world.

Send résumé, transcripts, and three letters of recommendation to:

**Dr. Douglas Wharen
Director of Research
The Institute of Paper Chemistry
P.O. Box 1039
Appleton, Wis. 54912
Telephone: 414-738-3232**

We are an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION—DNA METHYLATION

Research program employs genetic and molecular techniques to investigate function and regulation of DNA methylation in *Neurospora crassa*. Experience with recombinant DNA and microbiology desirable. Minimum salary: \$15,000. Send résumé and references to: **Dr. Eric Selker, Institute of Molecular Biology, University of Oregon, Eugene, Ore. 97403**; telephone: 503-686-5193. *The University of Oregon is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE position available for studies related to apolipoproteins and lipoproteins. Location: University of California, Irvine and Long Beach, California. Candidate should be interested in atherosclerosis research; background in biochemistry and immunology desirable. Experience in lipoprotein and apolipoprotein isolation, immunization, development and characterization of monoclonal and polyclonal antibodies, immunoassay, immunoblotting, chromatographic, and electrophoretic techniques important. Send curriculum vitae, summary of research experience, and names of three references to: **Moti L. Kashyap, M.D., BOX 270, SCIENCE**.

POSITIONS OPEN

POSTDOCTORAL POSITION IN FISHERIES OR BIOLOGICAL OCEANOGRAPHY. Available for research on tropical and subtropical fisheries ecosystems or quantitative stock assessment techniques in collaboration with Cooperative Institute for Marine and Atmospheric Studies (CIMAS). Fellows, faculty, and scientists of the Rosenstiel School of Marine and Atmospheric Science (RSMAS) and National Oceanographic and Atmospheric Administration (NOAA's) Southeast Fisheries Center. One year appointment extendable to 2 years. Salary \$26,000 to \$29,000 based on experience. Applicants should submit (i) a résumé, (ii) a specific statement of research interest, and (iii) the names of three references to: **Dr. William W. Fox, Jr., Professor and Director, Cooperative Institute for Marine and Atmospheric Studies, RSMAS/University of Miami, 4600 Rickenbacker Causeway, Miami, Florida 33149; telephone: 305-361-4185. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION—VIROLOGIST: Position available, neurotropic viruses. Applicant should have experience in tissue culture and propagation of mammalian viruses. Expertise in glycolipid methodology or background in multiple sclerosis is highly desirable. Send curriculum vitae to **Dr. Mary Ann K. Markwell, Department of Microbiology, George Washington University Medical Center, 2300 I Street, N.W., Washington, D.C. 20037.**

POSTDOCTORAL POSITION available immediately in **YEAST MOLECULAR BIOLOGY**, to study the expression and replication of the dsRNA viruslike particles of the *S. cerevisiae* Killer system. Current emphasis on processing and secretion of cDNA-encoded preprotoxin. Some recombinant DNA experience essential. Send curriculum vitae and have three letters sent to: **Donald J. Tipper, Ph.D., Department of Molecular Genetics and Microbiology, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, Mass. 01605.**

POSTDOCTORAL RESEARCH ASSOCIATE. Seek recent Ph.D. to join physical chemistry program to study the interaction of active oxygen species (superoxide radical, OH, and so forth) with cell membranes and membrane components. Experience with membranes is a prerequisite. Appointment for 1 year, renewable, with minimum salary \$22,000 per year, starting January 1986. Apply to: **Dr. B. Bielski, Department of Chemistry, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, N.Y. 11973. Equal Opportunity Employer, M/F.**

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately in neuroendocrinology of reproduction with interest in steroid feedback, neuropeptide and neurotransmitter interactions, and behavior. Background in neurochemistry and neuropharmacology desirable. Send curriculum vitae and three references to: **Dr. S. P. Kalra, Department of Obstetrics and Gynecology, University of Florida College of Medicine, P.O. Box J-294 JHMHC, Gainesville, Fla. 32610.**

The University of Kansas Medical Center seeks applicants for an **ENDOWED PROFESSORSHIP**, for the advancement of cancer research.

Applicants may have an M.D., Ph.D., or both, and have proven records of excellence in any area of basic cancer research. The successful candidate will be expected to further develop and maintain an active and productive research program at the University of Kansas Medical Center. The Wilkinson Professor will be expected to provide leadership in the academic community and promote research related to cancer.

Faculty appointment with tenure will be provided in the department of the candidate's choice but administrative and teaching duties are not associated with the professorship. Generous laboratory and office space are available in the basic science facility with substantial funds approved for renovation and equipment. In addition, the professorship will provide annual research support to be used at the incumbent's discretion. Salary is negotiable, depending on qualifications of the applicant.

Candidate evaluation will begin 15 January 1986. Curriculum vitae and names of three references should be sent to:

Jane E. Henney, M.D.
Associate Vice Chancellor
University of Kansas Medical Center
39th and Rainbow Boulevard
Kansas City, Kansas 66103

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

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE sought to begin early 1986 in research on the theory of optical properties and energetics of complex molecular systems using new multipole interaction approaches. Qualifications include experience with theoretical and computational methods in molecular problems and a record of productive research activity. Excellent facilities in a stimulating academic and cultural environment. Attractive salary commensurate with experience. Send résumé to: **Professor Jon B. Applequist, Department of Biochemistry and Biophysics, Iowa State University, Ames, Iowa 50011.**

POSTDOCTORAL RESEARCH ASSOCIATE. Studies of the biochemistry and genetics of antibiotic production by *Streptomyces* spp. Characterization of mutants, plasmid DNA isolation, gene cloning, and enzyme isolation. Background in rDNA work and gene cloning absolutely required; experience with protein purification helpful. Ph.D. in microbiology, genetics, or biochemistry. Available mid-1986 for 1 or 2 years. Send résumé and two letters of recommendation to: **Dr. C. R. Hutchinson, University of Wisconsin, 425 North Charter Street, Madison, Wis. 53706; telephone: 608-262-7582.**

POSTDOCTORAL RESEARCH POSITION for recent Ph.D. in immunology, available immediately to study immunochemical and applicational aspects of monoclonal antibodies to human bladder cancer. Experience with monoclonal antibody is preferred. Position includes joint appointment at Harvard Medical School. Send résumé to: **Dr. Chi-Wei Lin, Director, Urology Research Laboratory, Massachusetts General Hospital, Fruit Street, Boston, Mass. 02114.**

UNIVERSITY OF BRITISH COLUMBIA

Predocloral and Postdoctoral Positions in Molecular Genetics and Biotechnology

Applications for predoctoral and postdoctoral positions, supported by a Medical Research Council of Canada Biotechnology Training Award, are invited from individuals with backgrounds in medicine or science for studies involving molecular genetics and biotechnology. Faculty members participating in this training program are from the Departments of Botany, Biochemistry, Medical Genetics, Microbiology, and Zoology with research interests covering all major areas of genetics and biotechnology. This program provides training using current genetic and recombinant DNA techniques.

Applicants should hold or be completing a B.Sc., M.Sc., Ph.D., and M.D. degree and do not necessarily need experience with recombinant DNA techniques. *These positions are open to Canadian citizens or landed immigrants.* For further information, contact the coordinator of the program: **Dr. Michael Smith, Department of Biochemistry, University of British Columbia, Vancouver, British Columbia, Canada V6T 1W5.**

PROTEIN BIOCHEMIST—To isolate, purify, and characterize biologically active connective tissue proteins using ion-exchange, gel filtration, affinity chromatography, hydroxyapatite chromatography, HPLC, SDS PAGE, blot transfer and so forth. Knowledge of producing and characterizing monoclonal and polyclonal antibodies is also required. Qualifications should include a doctorate in biochemistry or biology, and at least 3 years of postdoctoral experience with protein biochemistry. Forty hours a week; \$3,450 per month. Merit increases. Position located at University of California Los Angeles. Send résumé only to: **Lois Erlanger, 1000 Veteran Avenue, Room A3-34, Los Angeles, Calif. 90024.**

The Department of Biochemistry/Biophysics, University of Pennsylvania School of Medicine, is seeking a **RESEARCH ASSISTANT PROFESSOR** to work in the area of macromolecular structure using site-specific heavy metal labeling, electron microscopy and x-ray diffraction. The candidate should have experience in the preparation, characterization, and use of polyatomic heavy metal clusters as probes of biological structure; expertise in protein chemistry (particularly contractile proteins), electron microscopy and image analysis is also essential. A working familiarity with x-ray diffraction and with spectroscopic methods of structure research is recommended. Interested candidates should send curriculum vitae and three letters of recommendation by 15 January 1986 to: **Dr. Franz Mutschinsky, Chairman, Biochemistry/Biophysics/G3, School of Medicine, University of Pennsylvania, Philadelphia, Pa. 19104-6059. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.**

DIRECTOR

CLINICAL RESEARCH CENTER VANDERBILT UNIVERSITY SCHOOL OF MEDICINE

Vanderbilt University School of Medicine invites nominations and applications for the position of program director of the E. V. Newman Clinical Research Center. This NIH-funded General Clinical Research Center (GCRC) was established in 1961 and includes a 21-bed inpatient unit with four special procedure rooms, outpatient facilities with three examining rooms, CLINFO system, metabolic kitchen and dining room, core laboratories and director's laboratories, offices, and conference room—totaling 11,027 square feet. It is an integral part of the Vanderbilt Medical Center which is located on the main campus of Vanderbilt University.

Responsibilities include establishment of the Director's independent research program utilizing the facilities of the Clinical Research Center (CRC); teaching, through demonstration, ward rounds and perhaps course work, the principles and techniques of clinical investigation to medical students, house officers, research fellows, and junior faculty; assisting other clinical investigators with experimental design and laboratory methods to insure that all research conducted by the CRC is of high scientific merit and is in compliance with federal, state, local, and university regulations; and administrative responsibility for the CRC.

Candidate should be an experienced clinical investigator, qualified for a tenured appointment in an appropriate department of the medical school, with the scientific leadership, interpersonal, and administrative skills necessary to carry out the responsibilities specified above.

Position available immediately due to the untimely death of the former director, Dr. William W. Lacy. Please send curriculum vitae to:

Oscar B. Crofford, M.D.
Search Committee Chairman
A-5100 Medical Center North
Vanderbilt School of Medicine
Nashville, Tennessee 37232

An Equal Opportunity/Affirmative Action Employer

MEDICAL UNIVERSITY OF SOUTH CAROLINA POSTDOCTORAL FELLOWSHIPS IN CELL AND MOLECULAR PHARMACOLOGY

Fellowships are available for Ph.D., Ph.D./M.D., or M.D. candidates in an interdisciplinary environment of basic and clinical scientists studying biological systems important to the design and actions of new drugs. Areas of particular interest include: transmembrane calcium transport in excitable tissues (G. E. Lindenmayer, E. E. Bagwell); cellular roles of kallikrins and kinins (H. S. Margolius, J. Chao, D. Miller); atriopeptins (M. G. Currie); characterization of thromboxane receptors (P. V. Halushka); adenosine metabolism in cardiac myocytes and tissue (W. H. Newman, J. G. Webb); neural proteins and central control of arterial pressure (T. E. Gaffney, P. J. Privitera, H. B. Daniell, E. E. Bagwell, J. G. Webb); analytical and synthetic chemistry of endogenous compounds and analogs (PG's, peptides) with particular emphasis on mass spectrometry and NMR (D. R. Knapp, J. Oatis, J. J. Vrbancic); adrenergic drug metabolism (T. Walle); roles of red cell proteins in hemolytic events (D. J. Jollow, V. F. Price); regulation of vitamin D and mineral metabolism (N. H. Bell).

Recent NIH and other grants for the above individuals include approximately \$7,500,000 for: individual research grants; construction of new molecular biology, hybridoma and cell culture laboratories; clinical research; and for the recruitment of additional cell and molecular biologists, chemists and other physical scientists interested in innovative approaches to therapeutic objectives.

Stipends for U.S. citizens or permanent residents funded through an NIH-supported training grant, and special stipends are available for other exceptional candidates via the College of Graduate Studies of the Medical University. Send résumé, relevant transcripts and reprints, statement of research interests, and names of three or more references to: **Dr. H. S. Margolius, Director, Postdoctoral Training Program, Department of Pharmacology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S.C. 29425. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

PROGRAM ASSISTANT (VIROLOGY)

Immediate opening. Individual needed to perform serological and tissue culture tests to confirm impressions of viral infections. Position requires a bachelor's degree and 2 years of pertinent laboratory experience, one of which is recent virology experience in a clinical laboratory. Résumé to: **Mr. Thomas J. McGimpsey, County of Westchester, Department of Laboratories and Research, Valhalla, N.Y. 10595.** Include salary requirements. *Equal Opportunity Employer.*

RADIATION SAFETY OFFICER. Candidates are being sought who will be responsible for the maintenance of a comprehensive radiation safety program at Wright State University and Kettering Medical Center. The University conducts activities under three NRC licenses (Type A Broad, Special Nuclear Material, and Neutron Generator) and State of Ohio Registrations. The program consists of activities in the educational, research, medical, and maintenance elements of the university community. The Kettering Medical Center conducts activities under a specific License for Diagnostic Nuclear Medicine and State of Ohio Registrations to include one and possibly two accelerators. A Ph.D. degree in health physics, radiological health, radiation biology, or equivalent is required with sufficient experience to meet minimum qualifications for an NRC-approved radiation safety officer in order to direct the Radiation Safety Office at Wright State University and Kettering Medical Center. Send résumé and three references by 31 January 1986 to: **Dr. Albert E. Langley, Chair, Search Committee for Radiation Safety Officer, School of Medicine, Wright State University, Dayton, Ohio 45435.** *Wright State University is an Affirmative Action/Equal Opportunity Employer.*

RESEARCH ASSOCIATE

Two positions available immediately related to studies on insulin growth factor/regulation of protein phosphorylation. Experience in protein purification; experience in recombinant DNA technology, including expression of cloned genes in mammalian cell culture. Protein microsequencing, oligonucleotide, and peptide synthesis are available via an adjacent core facility. Salary commensurate with experience. Send curriculum vitae and three letters of support to: **J. Avruch, Howard Hughes Medical Institute Laboratory, Diabetes Unit, Massachusetts General Hospital, Boston, Mass. 02114; or telephone: 617-726-6909.**

RESEARCH ASSOCIATE POSITION AVAILABLE

Available immediately for 3 years to study molecular biology of membrane glycoproteins. Research will involve isolation and characterization of normal and mutant genes responsible for production of adhesive glycoproteins on the surface of human blood platelets. Applicants should have a Ph.D. degree in biochemistry or microbiology and experience in molecular biology technology. Send curriculum vitae and names of three references to: **Dr. G. C. White, Division of Hematology, University of North Carolina School of Medicine, 417 Burnett Womack Building 229H, Chapel Hill, N.C. 27514.** *The University of North Carolina is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE—ORGANIC CHEMISTRY. Organic synthesis in the area of polymer chemistry will be carried out. New compounds which will eventually be screened by the Air Force in the energetic materials program will be made. Reaction products using various spectroscopic methods will be analyzed. Thirty-five to 40 hours per week (research position at university), \$21,900 per year. Must have Ph.D. in chemistry and educational background to do computations on structures. Send résumés to: **Illinois Job Service, 910 South Michigan Avenue, Room 400, Chicago, Ill. 60605.** Attention: **Mary Millea,** Reference Number 4591-M. An employer paid ad.

RESEARCH SCIENTIST in applied physics and mathematics. Minimum requirements include Ph.D. in physics at the date of hiring. Two years research experience in software application to wave propagation and vibration problems. Advanced knowledge of stochastics. Experience with strong motion measuring instruments and data processing. Forty hours per week; \$51,300 per year. Job site Arcadia. Send this ad and résumé to: **Job Number 4097, P.O. Box 9560, Sacramento, California 95823-0560,** not later than 4 January 1986.

POSITIONS OPEN

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, Tex. 79430.**

RESEARCH ENVIRONMENTAL SCIENTIST. Environmental Protection Agency's (EPA) Environmental Research Laboratory at Narragansett, Rhode Island, conducts research on the fate and effects of complex pollutants in marine environments. A permanent position is available in the laboratory's Marine Processes Division for an environmental scientist GS-12, salary range \$31,619 to \$41,105, to develop and apply statistical models for describing environmental processes related to transport, transformation, and fate of pollutants in estuarine, coastal, and open ocean areas. Applicants must have a Ph.D. or equivalent experience and be a U.S. citizen. For further information, contact: **Brenda Laing, U.S.-EPA, South Ferry Road, Narragansett, R.I. 02882; telephone: 401-789-1071** before 24 January 1986. *An Equal Opportunity Employer.*

SILVICULTURE/FOREST MANAGEMENT. The Department of Horticulture and Forestry, Cook College, Rutgers University, invites applications for a full-time, tenure-track position in silviculture/forest management available 1 July 1986. Rank and salary commensurate with qualifications and experience. The successful applicant will teach an undergraduate course in silviculture and/or forest finance and management, participate in teaching other courses, and develop a research program emphasizing silviculture and management of nonindustrial private woodlands for multiple benefits. Participation in an appropriate graduate program required. Qualifications are a Ph.D. in forestry or closely related field with a minimum of one degree in forestry, and strong training in silviculture or management. Experience in silviculture and management of nonindustrial private woodlands is desirable.

Submit curriculum vitae, college transcripts (recent graduates), representative publications, and names of three references to: **Dr. Edwin J. Green, Chairman, Silviculture Search Committee, Forestry and Wildlife Section, Cook College-Rutgers University, P.O. Box 231, New Brunswick, N.J. 08903.** Applications accepted until suitable candidate selected.

URBAN FORESTRY. The Department of Horticulture and Forestry, Cook College, Rutgers University, invites applications for a faculty position in urban forestry available 1 July 1986. This is a tenure-track position, budgeted 70 percent teaching, 30 percent research, with rank and salary commensurate with qualifications and experience.

Qualifications: Ph.D. in urban forestry, forest pathology, or closely related field. Experience in urban forest management is desirable.

Responsibilities: The appointee will have the mission of developing a center of excellence for urban forestry in New Jersey. Rutgers is at the center of the Boston-Washington urban corridor, where a combination of dense population, reasonably good tree-growing climate, and extensive interface of urban areas with wooded tracts, parks, and tree-lined streets provides the environments with which urban forestry is concerned. The appointee will teach courses in urban forestry, outdoor recreation, and park management. Additional responsibilities will include advising undergraduate and graduate students; serving on appropriate university and professional committees; developing and enhancing rapport with various clientele groups; and performing other duties associated with academic appointment.

Submit letter of application, curriculum vitae, summary of research and teaching objectives, representative publications, and three letters of recommendation to: **Dr. J. E. Kuser, Chair, Search Committee, 206 Blake Hall, Cook College, New Brunswick, N.J. 08903.** Applications will be accepted until a suitable applicant is found.

POSITIONS OPEN

MARINE AND ATMOSPHERIC CHEMISTRY, OCEAN RESEARCH DIVISION, SCRIPPS INSTITUTION OF OCEANOGRAPHY. Applications are invited for a **RESEARCH SCIENTIST** to carry out experimental and/or theoretical research in one of the following related fields: carbon dioxide and other radiatively important atmospheric trace gases, climate modeling of trace gases in a coupled ocean-atmosphere system, air-sea gas exchange dynamics, marine carbonate chemistry, or tracer studies of ocean ventilation. Applicants must hold the Ph.D. degree or equivalent and have demonstrated excellence and independence in their research. The position is offered at the assistant, associate, or full research level (\$34,000 to \$51,700), depending upon the candidate's qualifications, and is up to 2/3 state-funded. The candidate will be responsible for obtaining extramural support for his/her salary. There is also the possibility of supervising graduate student research through appointment as an adjunct lecturer. Send curriculum vitae, including description of research interest, list of publications, and names of at least three references to: **Chairman, Ocean Research Division, A030 (S) Scripps Institution of Oceanography, University of California, San Diego (UCSD), La Jolla, Calif. 92093.** Closing date for applications is 1 February 1986. *UCSD is an Equal Opportunity/Affirmative Action Employer.*

SENIOR SCIENTIST for manufacturer of medical diagnostic equipment located in northern Ohio to direct sophisticated machine design for medical imaging and develop new techniques for the imaging of special patients or a particular pathology, noninvasively. Major university hospital collaboration expected. To perform clinical research on nuclear magnetic resonance (NMR) imaging devices, specifically pulse sequences for clinical imaging. Design and participate in NMR education and training programs for physicians, physicists, and magnetic resonance technicians. Develop and collect data required by government agencies for NMR approval. Requires M.S. in physics with 1 year of experience working with NMR imaging devices. Forty-hour week. Salary: \$2708 per month. Qualified applicants send résumé with this ad to: **B. Phillips, The Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, Ohio 43216.** Refer J.O. Number 0274927.

The Department of Geological Sciences invites applications in the field of **VERTEBRATE PALEONTOLOGY.** This is a tenure-track position. The department is looking for an assistant professor, but outstanding candidates will be considered at higher levels. Candidates with research interests in the general area of "lower vertebrates" (fish, amphibians, reptiles) are preferred. The candidate will be expected to maintain an active research program and participate in the teaching of graduate and undergraduate courses in vertebrate paleontology and related fields in geology, including field geology and introductory paleontology.

Applicants should send curriculum vitae, a statement of professional goals, other supportive materials and names, addresses, and telephone numbers of at least three references to:

**Chairman
Department of Geological Sciences
The University of Texas at Austin
Austin, Texas 78713-7909**

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

VIROLOGIST

Research Associate/Postdoctoral Fellowship position is available to participate in multidisciplinary study of AIDS-related dementia and HTLV-III infection of the central nervous system. Studies will focus on the pathogenesis of HTLV-III infection of neural cells in vivo and in cell culture using both classical virological and molecular techniques to define viral replication, viral gene expression, and altered cell function. 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, N.Y. 10021.** *Equal Opportunity Employer, M/F/H.*

ZOOPLANKTON TECHNICIAN for experimental work, including collection and identification, sorting, culturing estuarine copepods and microzooplankton and using radioisotopes; send résumé, detailed cover letter, and names of three references to: **Dr. Kevin Sellner, The Academy of Natural Sciences, Benedict Estuarine Research Laboratory, Benedict, Md. 20612.**

HEALTH PHYSICIST

Merck Sharp & Dohme Research Laboratories, a world-wide leader in pharmaceutical research, has an immediate opening for a Health Physicist. The incumbent will be required to provide sound health physics guidance to a creative and multi-discipline research organization.

This position requires a PhD. degree or equivalent in Biochemistry/Chemistry with background experience in radiation hygiene.

Salary, benefits and career potential are excellent. Send resume and salary requirements to: Susan Rhue Jenkins, Merck & Co., Inc. P.O. Box 2000, RBOM-TL1, Rahway, NJ 07065.

EEO/AA/VH/Employer



Merck & Co., Inc.

AUSTRALIA

CSIRO

RESEARCH FELLOW

IMMUNOLOGIST/MOLECULAR BIOLOGIST

\$26,001-\$38,243

DIVISION OF TROPICAL ANIMAL SCIENCE

LONG POCKET LABORATORIES

INDOOROOPILLY QLD

GENERAL: The Division of Tropical Animal Science undertakes research on the improvement of animal production, particularly cattle production, in tropical Australia. It has programs on breeding and management, disease and parasite control and nutrition.

The microbiology section at the Long Pocket Laboratories is engaged on a study of the vectors, pathogenesis and immunity of bovine ephemeral fever. The particular objective of the appointee will be to define the fractions of the ephemeral fever virus which induces immunity to the disease with a view to its eventual manufacture by the appropriate biotechnological means.

DUTIES: The appointee will undertake a study of bovine ephemeral fever viruses and relevant related viruses as a preliminary to selecting the most suitable for use as a non-living vaccine. The study will involve the fractionation of viruses by appropriate techniques; the production and use of suitable monoclonal antibodies; and the cloning of antigens capable of producing protection of cattle. Assistance will be provided by an experimental scientist familiar with ephemeral fever virus culture. Co-operation with an immunochemist producing specific antigenic and antibody probes for the detection of ephemeral fever virus in cattle or virus in insects will be expected.

QUALIFICATIONS: A PhD degree or equivalent qualifications in immunological and recombinant DNA techniques, especially related to viruses.

TENURE: A term of 2½ years with Australian Government superannuation benefits available.

APPLICATIONS: Stating relevant personal particulars, including details of qualifications and experience, the names of at least two professional referees and quoting reference No A2273, should be directed to:

The Chief
CSIRO Division of Tropical Animal Science
Private Bag No 3
INDOOROOPILLY QLD 4068

By 4 weeks from date of publication

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*A collection of 100 essays by
Philip H. Abelson, past Editor of
Science*

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Director of Biopolymers Laboratory

Biosciences Research Building Harvard Medical School

The Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, and the Howard Hughes Medical Institute are seeking a faculty member at the assistant professor (tenure-track) level who will be responsible for an independent research program and for the supervision of a modern biopolymers laboratory, including all major equipment and technical staff. The successful candidate will consult with faculty and staff regarding solutions to specific problems relating to current research programs in molecular and cellular biology. Should be familiar with nucleotide and peptide synthesizers, the gas-phase protein sequencer, and related procedures, and will be expected to implement new techniques as they become available. In addition, will oversee a FACS-fluorescence microscopy facility. Minimum requirements: Ph.D. in chemistry or related basic science, experience in peptide chemistry, and familiarity with required equipment and techniques. *Applications from women and minorities are especially encouraged.* Direct applications, including curriculum vitae and three references to: **Dr. Joseph Majzoub, Department of Medicine, Brigham and Women's Hospital, 75 Francis Street, Boston, Mass. 02115. An Affirmative Action/Equal Opportunity Employer.**

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Applicants should respond to:

Ohio Bureau of Employment Services
P.O. Box 1618
Columbus, Ohio 43216
Attention: J.O. Number 1019620, L. Ellison

UNIVERSITY OF ALBERTA DEPARTMENT OF PHYSIOLOGY

The Department of Physiology invites applications for a position as **RESEARCH SCHOLAR** at the assistant professor rank. The successful candidate must have a Ph.D. degree and have demonstrated outstanding ability for independent research. Preference will be given to investigators with experience in renal physiology and/or neurophysiology. The successful candidate will also be expected to participate in the department's teaching program. This position will be funded through an external agency such as The Alberta Heritage Foundation for Medical Research (AHFMR), but the successful candidate will enjoy the privileges of the university rank of assistant professor. AHFMR also offers establishment grants for setting up a well-equipped laboratory and for initial operating expenses to the successful candidate. *The University of Alberta is an Equal Opportunity Employer, but in accordance with Canadian employment and immigration regulations, this advertisement is directed to Canadian citizens and permanent residents.* Interested applicants should send their curriculum vitae, an outline of their proposed research, and the names of three referees before 1 February 1986 to:

The Chairman
Department of Physiology
University of Alberta
Edmonton, Alberta, Canada
T6G 2H7

RESEARCH TECHNICIAN POSITION available immediately for scanning electron microscopy research. Send curriculum vitae to: **Dr. Betty Ruth Jones, Department of Biology, Morehouse College, Atlanta, Georgia 30314.** *An Affirmative Action/Equal Opportunity Employer.*

SCIENCE EDUCATION/BIOLOGY. Responsibilities include supervising secondary science student teachers, teaching secondary science methods and general education science, participating in interdisciplinary master's program; opportunities to teach in biology specialty. Research in science education or biology expected. Earned doctorate required. Experience in secondary science teaching and supervision preferred. Tenure-track position begins 21 August 1986, assistant to associate professor level. Send résumés and references by 1 February 1986 to: **Dr. Wayne Savage, Chairman, Department of Biology, School of Science, San Jose State University, San Jose, Calif. 95192.** *SJSU is an Equal Opportunity/Affirmative Action/Title IX Employer.*

WILDLIFE ECOLOGIST. Assistant Scientist to investigate strategies for reducing crop depredation by mammals, particularly deer. Ph.D. in biology. Applicant should have a strong background in wildlife physiology, animal behavior, ecology, quantitative methods, knowledge of botany, and must have a proven ability to interpret animal behavior in the field. Send curriculum vitae, undergraduate and graduate transcripts, and three letters of reference before 22 January 1986 to: **Dr. Donald E. Aylor, Chief, Department of Plant Pathology and Ecology, The Connecticut Agricultural Experiment Station, Box 1106, New Haven, Connecticut 06504.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

TERRESTRIAL PLANT ECOLOGIST—Unity College seeks Ph.D. for permanent assistant professorship starting August 1986 to teach introductory botany, taxonomy, ecology, and specialty courses complementary to existing ecology, forestry, and wildlife programs. Professional development expected. Send curriculum vitae, statement of interests, and names and telephone numbers of three references by 15 February 1986 to: **Grant S. Estell, Chair, Center of Environmental Sciences, Unity College, Unity, Maine 04988.** Telephone: 207-948-3131, extension 240.

VIROLOGIST. Rapidly growing medical diagnostic manufacturer needs a highly motivated individual to develop rapid viral diagnostic antigen and antibody assays. Requires a Ph.D. in virology, with experience in immunoassay development preferred. Qualified individuals may submit résumés and salary requirements to: **Mr. J. Holland, Meridian Diagnostics, Inc., 3471 River Hills Drive, Cincinnati, Ohio 45244.**

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. *An Affirmative Action-Equal Opportunity Employer.*

MEETING

1986 HISTOCHEMICAL SOCIETY MEETING. Joint Meeting of the American and Japanese Histochemical Society will be held on 9 to 13 June 1986, at the Seven Hills Conference Center, San Francisco State University, San Francisco, California. Vector Young Investigator Awards for travel expenses. Ralph D. Lillie Award for outstanding presentation by a student. **Deadline for Abstracts: 28 February 1986.** Forms in December 1985 issue *Journal of Histochemistry and Cytochemistry*: **Dr. E. W. Gresik, Program Chairman, Department of Anatomy, Mount Sinai School of Medicine, 5th Avenue and 100th Street, New York, N.Y. 10029.** The Histochemical Society welcomes new members. Membership forms: **Dr. C. Oliver, Laboratory of Oral Biology/Physiology, Building 30, Room 211, National Institute of Dental Research, National Institutes of Health, Bethesda, Maryland 20205.**

COURSE

MOLECULAR ENDOCRINOLOGY AND TECHNIQUES FOR HORMONE ACTION 16 to 21 February 1986

This course will consist of lectures in methodology with comprehensive syllabus covering receptors, gene transcription, mRNA and protein synthesis, recombinant DNA, protein hormones, and cyclic nucleotides.

Co-directors: **W. T. Schrader and B. W. O'Malley.**
Fee: \$365 (\$245—fellow).

For further information, contact:

Bonnie Cuthbert
Department of Cell Biology
Baylor College of Medicine
Houston, Texas 77030
Telephone: 713-799-6200
Deadline—17 January 1986

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP

Postdoctoral research position available immediately to conduct research on (i) the structure of nucleoprotein complexes and (ii) mechanisms of DNA repair tumor viruses. Current research uses psoralen cross-linking, gel electrophoresis, and electron microscopic techniques. Experience in tumor virology, nucleic acid chemistry, and DNA cloning is desirable. Please send curriculum vitae, list of publications, and names of three references to: **Ming-Ta Hsu, Ph.D., Department of Microbiology, Mount Sinai School of Medicine of the City University of New York, One Gustave L. Levy Place, New York, N.Y. 10029.** *An Equal Opportunity Employer.*

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS. Candidates should have knowledge of protein chemistry and some knowledge of organic synthesis. The research will involve interaction between immunologists, chemists, and photobiologists. (**Dr. Julia Levy, Microbiology; Dr. D. Dolphin, Chemistry; G.H.N. Towers, Botany.**) Salary: \$22,000 Canadian. Send curriculum vitae and three letters of reference to: **Dr. David Dolphin, Department of Chemistry, or Dr. Julia Levy, Department of Microbiology, The University of British Columbia, Vancouver, British Columbia, Canada V6T 1Y6.**

FELLOWSHIPS IN REPRODUCTIVE BIOLOGY NORTHWESTERN UNIVERSITY

Postdoctoral and predoctoral fellowships are available in reproductive biology for outstanding students. A diverse but cohesive program offers research in the biochemical, cellular, physiological, and behavioral aspects of reproduction. Participating faculty include: **Erwin Goldberg** (Immunohistochemistry and reproductive biochemistry), **Mary Hunzicker-Dunn** (Ovarian protein kinase: adenylyl cyclase), **William Klein** (Receptors; CNS differentiation), **Andrew LaBarbera** (Mechanism of gonadotropin action), **Jon Levine** (Neuroendocrinology), **Neena Schwartz** (Gonadal-pituitary endocrinology), **Joseph Takahashi** (Circadian rhythms and photoreception), and **Fred Turek** (Photoperiodism and biological rhythms). Send curriculum vitae and names of three references to: **Dr. Neena Schwartz, Department of Neurobiology and Physiology, Northwestern University, Evanston, Illinois 60201.**

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Major fields: membrane biology and biophysics; muscle biology; cardiovascular pharmacology; neuropharmacology; cell activation and cellular control systems; hormone receptors and ion channels; anesthetics. Applications are sought from highly qualified individuals with backgrounds in the physical, biological, or engineering sciences. Stipend dependent on qualifications.

Write to: **Dr. A. H. Caswell, P.O. Box 016189, Miami, Fla. 33101.** Telephone: 305-547-6643. *Affirmative Action/Equal Opportunity Employer.*

GRADUATE TRAINING

GRADUATE TRAINING PROGRAM IN NEUROSCIENCE—The Neuroscience Program at The Milton S. Hershey Medical Center of The Pennsylvania State University has assistantships available in September 1986. This interdepartmental program is designed to confer a Ph.D. degree with a major in neuroscience after 4 years of study. A master's degree program is also available. Participating faculty have established research programs in molecular biology of the nervous system, electrophysiology, neuroendocrinology, neuropsychology, neuropharmacology, and cerebral metabolism. Interested candidates are invited to apply to: **Dr. Robert Page, Chairman, Neuroscience Program, The Milton S. Hershey Medical Center, The Pennsylvania State University, P.O. Box 850, Hershey, Pa. 17033.** *An Equal Opportunity/Affirmative Action Employer.*

GRANTS

RESEARCH INQUIRIES INVITED

The Smokeless Tobacco Research Council, Inc., invites inquiries regarding grant applications.

The council sponsors independent research into questions of smokeless tobacco and health. Research support is through a program of grants-in-aid.

Grant applications are evaluated by the Scientific Advisory Board to the council and will be judged solely on the basis of scientific merit and relevance.

Deadlines for submission of grant applications are 15 January for 1 July funding and 15 July for 1 January funding. Address inquiries or requests for applications to:

The Smokeless Tobacco Research Council, Inc., 420 Lexington Avenue, New York, N.Y. 10170; telephone: 212-697-3485.

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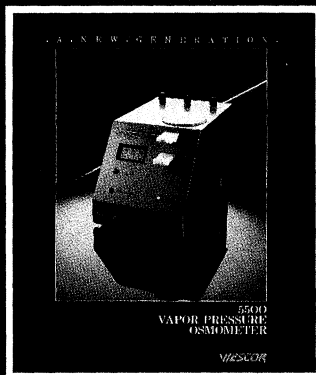


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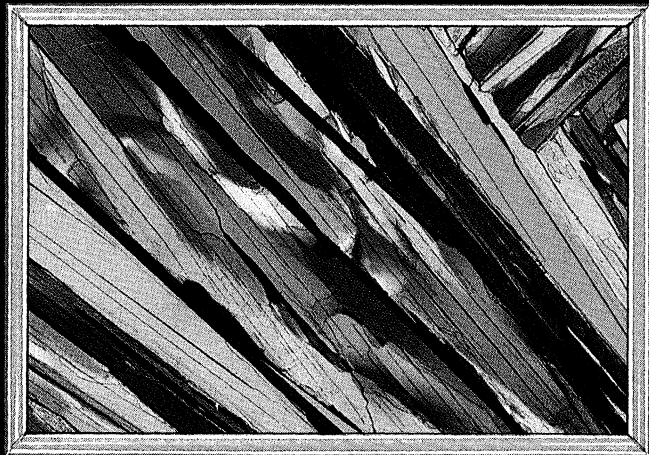
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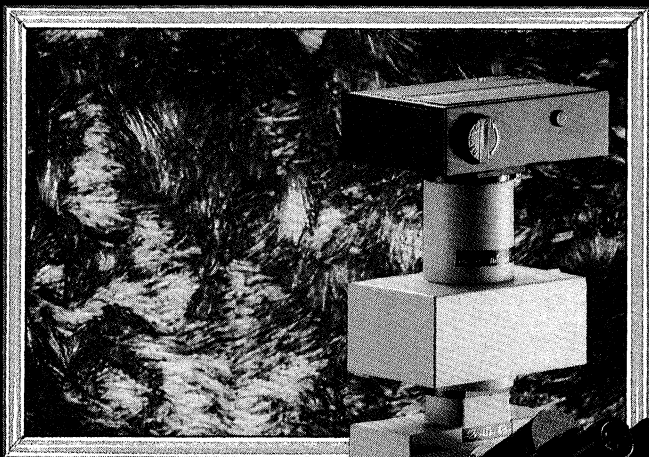
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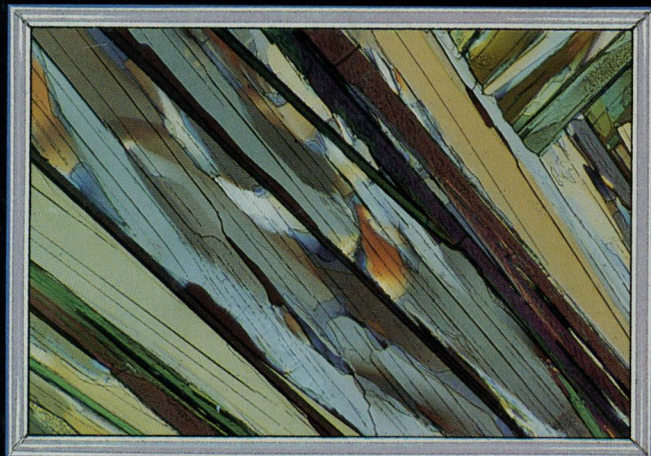
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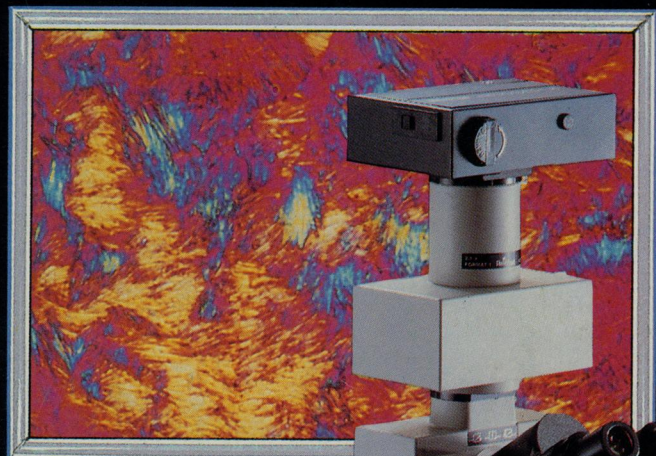
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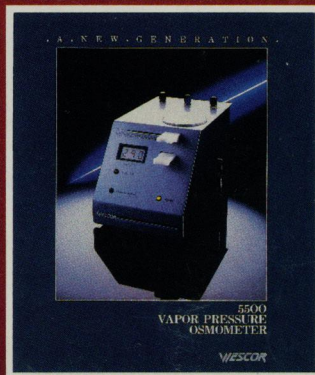


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