

ture especially thought-provoking. The book concludes with several questions left unanswered, particularly with regard to the puzzling role of secondary Haversian systems and bone remodeling processes in general. As is evident from the author's discussion of this topic, the current theories do not adequately explain the curvature of long bones or many of the responses of bone to mechanical stimuli; it appears that, whatever the mechanism by which such responses are mediated, it involves an integration far more complex than has been imagined.

This is an important book that will serve a broad readership, both student and professional, whose work entails an interpretation of bone structure and function. It is a delight to read and is filled with many good biological examples, new ideas, and questions that will certainly have an important impact on research in the field.

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Some Other Books of Interest

Ecological Entomology. CARL B. HUFFAKER and ROBERT L. RABB, Eds. Wiley-Interscience, New York, 1984. xvi, 844 pp., illus. \$75.

In this book the editors "have sought to bring together the known facts and reasonable concepts and theories relating insects to the factors of their environment, both biotic and abiotic, over both the short term . . . and longer . . . spans of time" and have attempted to present the subject in a degree of generality, breadth, and detail not equaled by any other book in the field. The book has 44 contributors, all but six from North America. The editors report that extensive editing, including cross-referencing among chapters, has been done to reduce problems of integration and unevenness. The introductory section of the book consists of two chapters, "Meaning of ecological entomology—the ecosystem" by Huffaker, H. T. Gordon, and Rabb and "The concept of the ecosystem" by Peter W. Price. Section 2, Basic Biological and Ecological Adaptations, Properties, Behaviors, and Processes, contains eight chapters on subjects ranging from growth and development (Gordon) to biogeography and evolutionary history (Eugene Munroe). There follow sections headed Natural Control of Insect Populations (eight

chapters), Roles or Effects of Insects in Ecosystems (four chapters), and Application of Ecology to Insect Population Management (three chapters). Each section has an introduction by the editors. The book concludes with a 48-page subject and taxonomic index. There is no general bibliography or author index.

—KL

Spatial Orientation. The Spatial Control of Behavior in Animals and Man. HERMANN SCHÖNE. Princeton University Press, Princeton, N.J., 1984. xviii, 348 pp., illus. \$55; paper, \$14.95. Princeton Series in Neurobiology and Behavior. Translated from the German edition (Stuttgart, 1980) by Camilla Strausfeld.

This volume inaugurates a Princeton University Press series to be edited by Robert R. Capranica, Peter Marler, and Norman T. Adler. In the preface the author sketches the history of approaches to the study of his subject from the time of Jacques Loeb and Alfred Kühn through the advent of systems analysis. In the present treatment, he writes, "The focus . . . is on the analysis of the system as a whole: the physiology of the orientation behavior. We shall look at mechanisms from the stimulus-response relationships and the determination of the central reference value to the structure of interactions within the whole system, e.g. to human spatial perception and to space constancy. Sensory physiology is covered where it is necessary for the understanding of the orientation itself." A brief opening section, Orientation: Its Meaning and Scope, is followed by a section concerned with external aspects of orientation—directing stimuli, components of orientation, spatial referents, and so on. The third and final section of the book deals with orientation according to sensory modality. In addition to visual, auditory, tactile, and chemosensory orientation, orientation to heat, magnetic fields, vibration, currents, and gravity and angular acceleration are considered. The book has a reference list of 1028 entries, including some as recent as 1981 as well as many from the early German literature.—KL

Books Received

The Acid Rain Sourcebook. Thomas C. Elliott and Robert G. Schwieger, Eds. McGraw-Hill, New York, 1984. vi, 290 pp., illus. \$37.50. Based on a conference, Washington, D.C., March 1984.

Acquired Immune Deficiency Syndrome. Michael S. Gottlieb and Jerome E. Groopman, Eds. Liss, New York, 1984. xxii, 438 pp., illus. \$60. UCLA Symposia on Molecular and Cellular Biology, New

Series, vol. 16. From a symposium, Park City, Utah, Feb. 1984.

Advances in Applied Mechanics. Vol. 24. John W. Hutchinson and Theodore Y. Wu, Eds. Academic Press, Orlando, Fla., 1984. xii, 376 pp., illus. \$89.

Advances in Drying. Vol. 3. Arun S. Mujumdar, Ed. Hemisphere, Washington, D.C., 1984. xiv, 361 pp., illus. \$62.50.

Advances in Immunology. Vol. 35. Henry G. Kunkel and Frank J. Dixon, Eds. Academic Press, Orlando, Fla., 1984. xx, 281 pp., illus. \$36.50.

Bacterial and Viral Inhibition and Modulation of Host Defences. G. Falcone *et al.*, Eds. Academic Press, Orlando, Fla., 1984. xii, 249 pp., illus. \$24. From a symposium, Pisa, Sept. 1982.

Basic Human Neurophysiology. David F. Lindsley and J. Eric Holmes. Elsevier, New York, 1984. xvi, 368 pp., illus. \$32.50.

Beat the Racetrack. William T. Ziemba and Donald B. Hausch. Harcourt Brace Jovanovich, San Diego, Calif., 1984. xxii, 392 pp., illus., + plates. \$22.95.

The Bioorganic Chemistry of Enzymatic Catalysis. Myron L. Bender, Raymond J. Bergeron, and Makoto Komiyama. Wiley-Interscience, New York, 1984. xvi, 312 pp., illus. \$39.50.

Bone Marrow Biopsies Revisited. A New Dimension for Haematologic Malignancies. R. Bartl, B. Frisch, and R. Burkhardt. Karger, Basel, 1985. xiv, 138 pp., illus. \$34.75.

Cell Culture and Somatic Cell Genetics of Plants. Vol. 1, Laboratory Procedures and Their Applications. Indra K. Vasil, Ed. Academic Press, Orlando, Fla., 1984. xxxii, 825 pp., illus. \$85.

Cephalopod Life Cycles. Vol. 1, Species Accounts. P. R. Boyle, Ed. Academic Press, Orlando, Fla., 1983. xviii, 475 pp., illus. \$120.

The Classics of Science. A Study of Twelve Enduring Scientific Works. Derek Gijtsen. Barber, New York, 1984. x, 374 pp., illus. \$24.95.

Climate Processes and Climate Sensitivity. James E. Hansen and Taro Takahashi, Eds. American Geophysical Union, Washington, D.C., 1984. viii, 368 pp., illus. \$28. Geophysical Monograph 29. Maurice Ewing Volume 5. From a symposium, Palisades, N.Y., Oct. 1982.

Coherence and Energy Transfer in Glasses. Paul A. Fleury and Brage Golding, Eds. Plenum, New York, 1984. xiv, 419 pp., illus. \$62.50. NATO Conference Series VI, vol. 9. From a workshop, Cambridge, England, Sept. 1982.

Cybernetics. Theory and Applications. Robert Trappl, Ed. Hemisphere, Washington, D.C., 1983. xii, 455 pp., illus. \$80.

Cytochrome P-450. Structural and Functional Relationships, Biochemical and Physicochemical Aspects of Mixed Function Oxidases. Klaus Ruckpaul and Horts Rein, Eds. Akademie-Verlag, Berlin, 1984. 405 pp., illus. 80 M.

Data Bases for Mortality Measurement. United Nations, New York, 1984. x, 164 pp., illus. Paper. Department of International Economic and Social Affairs Population Studies, no. 84. From a meeting, Bangkok, Oct. 1981.

The Day the Sun Rose Twice. The Story of the Trinity Site Nuclear Explosion, July 16, 1945. Ferenc Morton Szasz. University of New Mexico Press, Albuquerque, 1984. xii, 233 pp., illus. \$15.95.

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Geophysical Data Analysis. Discrete Inverse Theory. William Menke. Academic Press, Orlando, Fla., 1984. xii, 260 pp., illus. \$42.50.

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Handbook of the Birds of India and Pakistan. Vol. 4, Frogmouths to Pittas. Salim Ali and S. Dillon Ripley, 2nd ed. Oxford University Press, New York, 1984. xvi, 267 pp., illus., + plates. \$37.50.

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Managing Interdisciplinary Research. S. R. Epton, R. L. Payne, and A. W. Pearson, Eds. Wiley, New York, 1984. x, 245 pp. \$29.95. From a conference, Manchester, England, July 1981.

The Marine Benthic Flora of Southern Australia. Part 1. H. B. S. Womersley. Government Printing Division, Netley, South Australia, 1984. 329 pp., illus. + plates. Paper, A \$16.50.

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The Oxford Book of British Bird Names. W. B. Lockwood. Oxford University Press, New York, 1984. x, 174 pp. \$16.95.

Pain Treatment. Pituitary Neuroadenolysis in the Treatment of Cancer Pain and Hormone-Dependent Tumours. Stefano Ischia, Sampson Lipton, and Gianfranco Maffezzoli, Eds. Cortina International, Verona, Italy, 1984 (U.S. distributor, Raven, New York). xiv, 119 pp., illus. \$37.50. From a symposium, Verona, June 1981.

The Particle Connection. The Most Exciting Scientific Chase since DNA and the Double Helix. Christine Sutton. Simon and Schuster, New York, 1984. 176 pp., illus. \$16.95.

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Physiological Correlates of Human Behaviour. Anthony Gale and John A. Edwards, Eds. Academic Press, Orlando, Fla., 1983. Three volumes. Vol. 1, Basic Issues. xvi, 350 pp., illus. \$39.50. Vol. 2, Attention and Performance. xiv, 245 pp., illus. \$39.50. Vol. 3, Individual Differences and Psychopathology. xvii, 298 pp., illus. \$48.

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Recent Advances in the Management of Pain. Costantino Benedetti, C. Richard Chapman, and Guido Moricca, Eds. Raven, New York, 1984. xx, 692 pp., illus. \$89. Advances in Pain Research and Therapy, vol. 7. From a symposium, Palermo, Italy.

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The Red Cell. George J. Brewer, Ed. Liss, New York, 1984. xxviii, 575 pp., illus. \$86. Progress in Clinical and Biological Research, vol. 165. From a conference, Ann Arbor, Mich., Oct. 1983.

Regression of Atherosclerotic Lesions. Experimental Studies and Observations in Humans. M. Rene Malinow and Victor H. Blaton, Eds. Plenum, New York, 1984. x, 355 pp., illus. \$52.50. NATO ASI Series A, vol. 79. From an institute, Maratea, Italy, Sept. 1983.

Reinforced Concrete Design. Chu-Kia Wang and Charles G. Salmon. 4th ed. Harper and Row, New York, 1984. x, 947 pp., illus. \$41.95.

Reliability Theory and Models. Stochastic Failure Models, Optimal Maintenance Policies, Life Testing, and Structures. Mohamed S. Abdel-Hameed, Erhan Cindlar, and Joseph Quinn, Eds. Academic Press, Orlando, Fla., 1984. xiv, 303 pp. \$37.50. Notes and Reports in Computer Science and Applied Mathematics, 10. From a symposium, Charlotte, N.C., June 1983.

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Science, Technology, and the Nuclear Arms Race. Dietrich Schroer. Wiley, New York, 1984. xvi, 414 pp., illus. Paper, \$18.95.

Shallow Refraction Seismics. Bengt Sjögren. Chapman and Hall, London, 1984 (U.S. distributor, Methuen, New York). viii, 270 pp., illus. \$45.

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Spitfire. A Test Pilot's Story. Jeffrey Quill. University of Washington Press, Seattle, 1984. xvi, 316 pp., illus., + plates. \$19.95.

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Stress Management. A Comprehensive Guide to Wellness. Edward A. Charlesworth and Ronald G. Nathan. Atheneum, New York, 1984. xxiv, 328 pp. \$17.95.

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This Land Is Your Land. The Struggle to Save America's Public Lands. Bernard Shanks. Sierra Club Books, San Francisco, 1984 (trade distributor, Random, New York). x, 310 pp., illus. \$19.95.

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The U.S. Health System. Origins and Functions. Marshall W. Raffle. 2nd ed. Wiley, New York, 1984. xii, 447 pp., illus. \$24.95.

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Wanted: Plant Research Position as liaison between molecular biologists and greenhouse management with industry/botanical garden/university or government. Unique combination of research experience includes: plant systematics; investigations of environmental responses and requirements for seed germination, plant development, flowering, fruit and seed production of ornamental and weed species at Southeastern Environmental Plant Laboratories; tissue-culture (M.S.) and traditional plant propagation; diagnostic analysis of seed morphology utilizing electron microscopy (Ph.D.). More than 30 publications. Will relocate. Contact: Dr. H. Beaufort-Murphy, Southeastern Environmental Plant Laboratories, North Carolina State University, Box 7618, Raleigh, N.C. 27695; telephone: 919-737-2778. X

Research Assistant. M.S. experienced with recombinant DNA, enzymology, electrophoresis, radioisotopes, nick translation, DNA hybridization, autoradiography, sterile techniques, DNA isolation. Seeks challenging position in molecular biology. Box 40, SCIENCE. X

Research Technician. B.S. biology, 1981, 6 hours toward M.S., 3 years of research hospital experience. Lymphokine production, purification and assay system, animal studies, tissue culture, B-cell hybridoma, photomicroscopy. Publication and excellent references. Seeking position in academia/industry. Will relocate. Box 36, SCIENCE. 2/8, 15, 22

POSITIONS OPEN

Position available—**ASSISTANT PROFESSOR**, non-tenure track, to work on the molecular genetics of *Chlamydia trachomatis*.

Emphasis to be placed on cloning of selected gene products and development of mutant strains. Starting salary: \$20,000 to \$25,000, depending on qualifications. Must have Ph.D. or equivalent, and postdoctoral experience in bacterial genetics. Please send curriculum vitae and names of three references to: **Robert B. Jones, M.D., Ph.D., Department of Medicine, EM 302, 545 Barnhill Drive, Indianapolis, Ind. 46223.**

The Department of Biological Sciences, San Jose State University (SJSU), is seeking candidates at the **ASSISTANT PROFESSOR OR ASSOCIATE PROFESSOR** level who have strong backgrounds in **CELL BIOLOGY**. A tenure-track position beginning fall 1985. Doctorate required. Teaching and research experience are desirable. Applications and inquiries to: **Chairman, Department of Biological Sciences, SJSU, San Jose, Calif. 95192.** Deadline for completed applications is 22 February 1985. *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ACADEMIC POSITION/LABORATORY DIRECTOR. The University of Michigan, Department of Surgery, has an academic position open for a full-time director in our Histocompatibility Laboratory at the instructor, assistant, or associate professor level. Candidates should have an M.D. or Ph.D. degree, experience in clinical tissue typing, and a strong research interest in transplant related subjects. Inquiries should be directed to: **D. A. Campbell, Jr., M.D., Associate Professor, General Surgery, University of Michigan Hospitals, D2244 SACB Box 46, Ann Arbor, Mich. 48109.** *The University of Michigan is an Affirmative Action/Equal Opportunity Employer.* PCN 98.

ANIMAL BEHAVIORIST

Instructor or assistant professor of biology. Colby College. A temporary 1-year appointment, starting 1 September 1985. Applicants should be broadly educated in the biological sciences and experienced in animal behavior. Preference may be given to those whose papers are received by 1 April 1985. Send curriculum vitae and three letters of recommendation to: **Dr. Miriam F. Bennett, Department of Biology, Colby College, Waterville, Maine 04901.** *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR

MORRIS COLLEGE, a private and predominantly black, 4-year liberal arts college in Sumter, South Carolina, is seeking a person to teach courses in general biology, genetics, and ecology. A Ph.D. in biology preferred; master's accepted. Beginning date: Immediately. Salary and rank commensurate with qualifications and experience. Submit letter of application, letters of recommendation, and academic transcripts to: **The Personnel Officer, Morris College, Sumter, S.C. 29150.** Deadline for accepting application is 28 February 1985. *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE PROFESSOR. Tenure-track, in Radiation Biology Section of the Department of Human Oncology, University of Wisconsin-Madison. Radiation Biology Laboratory investigator sought whose research interests may include hyperthermia, experimental radiation therapy, radiation carcinogenesis or radiation related molecular or cellular biology. Applicants should have a strong research record, be prepared to develop an independent research program and participate in the departmental teaching and Ph.D. training program. Send résumé, statement of research interests, and names of three references to: **Michael N. Gould, Radiation Biologist Search Committee, University of Wisconsin, Department of Human Oncology K4/332, 600 Highland Avenue, Madison, Wis. 53792.** *Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF ANATOMY WEST VIRGINIA UNIVERSITY

Applications are invited from individuals qualified to teach functional human gross anatomy and embryology. Preference will be given to applicants having an active research program which has the potential for extramural funding and which would augment existing areas of strength within the department. A relevant doctoral degree and at least 2 years of postdoctoral experience are required. Closing date for applications is 1 April 1985. Submit curriculum vitae with complete bibliography and three letters of reference to: **Dr. David B. Burr, Search Committee, Department of Anatomy, West Virginia University Medical Center, Morgantown, W.Va. 26506-6302.**

West Virginia University is an Equal Opportunity/Affirmative Action Employer.

PROFESSOR OF ANATOMY WEST VIRGINIA UNIVERSITY

Applications are invited from molecular biologists experienced in electron microscopy including freeze-fracture and quantitative electron probe, x-ray microanalysis of biological material. Preference will be given to individuals qualified to hold the rank of professor of anatomy and who have a demonstrated record of relevant publications and extramural funding. Closing date for applications is 25 February 1985. Submit curriculum vitae with complete bibliography, record of extramural funding, and three letters of reference to: **Dr. Robert S. McCuskey, Chairman, Department of Anatomy, West Virginia University Medical Center, Morgantown, W.Va. 26506-6302.**

West Virginia University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

Small consulting service needs **AGRONOMIST** to interpret soil, water, and plant analytical results; make fertilizer, insecticide, fungicide, and herbicide recommendations; advise on soil and water management crop production tillage practices and planting schedules. Substantial field work in all weather conditions. Ph.D. in agronomy/crop production with course work in dry land farming, irrigation techniques, organic farming, and agriculture climatology. Extensive traveling required; \$23,500 per year. Send résumés to: **Paul Hansen, Minnesota Job Service, 810 4th Avenue South, Morehead, Minnesota 56560.**

ASSISTANT PROFESSOR/ANATOMY-PHYSIOLOGY. Tenure-track position beginning September 1985. Responsibilities: teach integrated human anatomy-physiology and some other allied health science and physiologically oriented courses. Must be committed to teaching and advising undergraduates and supervising senior research. Ph.D. or equivalent degree required. Priority given to applications received before 15 March 1985. Send résumé, transcript of graduate courses, and names of three references to: **Dr. W. W. Fogleman, Chairman, Natural Science Department, Plymouth State College, Box E, Plymouth, N.H. 03264.**

Affirmative Action/Equal Opportunity Employer

ASSISTANT PROFESSOR/BIOCHEMIST OPPORTUNITY UNIVERSITY OF MINNESOTA

The Division of Epidemiology of the School of Public Health, University of Minnesota, seeks an assistant professor for a non-regular faculty appointment to begin on or about 1 July 1985. Cross appointment with the Department of Biochemistry, University of Minnesota Medical School, is possible. Major responsibilities are: (i) advising students and postdoctoral fellows, (ii) lectures in the Department of Biochemistry, (iii) develop new analytic procedures for use in human population researches, (iv) develop research programs with external funding, (v) supervision and quality control of a service laboratory, and (vi) research collaboration with other division faculty. Requirements include a Ph.D. with research interest in lipid biochemistry and experience in supervising a laboratory and 2 years of postdoctoral research experience. Last date for receipt of application material is **15 MARCH 1985**. Please send cover letter, curriculum vitae, publications list, and reference list to: **Dr. Russell Luepker, Chairman, Search Committee, Division of Epidemiology, School of Public Health, University of Minnesota, Stadium Gate 27, 611 Beacon Street, SE, Minneapolis, Minn. 55455.**

The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

ASSISTANT PROFESSOR OF BIOLOGY

Applications are invited for a tenure-track position available 1 September 1985. Ph.D. required. Duties include teaching undergraduate courses in general biology, anatomy and physiology, and introductory courses for non-science majors. Candidates should have a commitment to excellence in teaching. Salary commensurate with experience. Send curriculum vitae, descriptions of teaching and research experience, and the names of three references by 15 March 1985 to: **Dr. Henry M. Knizeski, Chairman, Department of Natural Sciences, Mercy College, Dobbs Ferry, New York 10522. Equal Opportunity Employer.**

THE SALK INSTITUTE Molecular Neurobiology Laboratory

The Institute is recruiting an **ASSISTANT PROFESSOR** to establish an independent research program in the field of molecular neurobiology. Preference will be given to individuals with research interests in the molecular biology of neural development.

The Institute offers a strong research environment and the opportunity for interaction with many laboratories focused on problems in molecular biology and neurobiology.

Please send curriculum vitae, a brief statement of research goals, and the names of three individuals that will provide letters of recommendation to:

**Search Committee
Department BC
The Salk Institute
P.O. Box 85800
San Diego, Calif. 92138**

POSITIONS OPEN

ASSISTANT PROFESSOR: BIOLOGY

Genetics: Tenure-track position beginning August 1985. Undergraduate teaching to include genetics, immunology, and physiology. A broad background is desired, with research experience and publication. Ability to direct undergraduates in research is important. Attained or nearly completed Ph.D. required. Send curriculum vitae with names of three references by 1 March 1985 to: **K. S. Xavier, Ph.D., Search Chairperson, Biology Department, Adrian College, Adrian, Mich. 49221. Adrian College is an Equal Opportunity Employer.**

ASSISTANT PROFESSOR OF MICROBIOLOGY

The Department of Biology, University of South Florida (USF), invites applications for a tenure-track position at the assistant professor level commencing August 1985. Applicants should have a strong background in microbiology with a specialization in microbial genetics or marine microbiology, and postdoctoral training. The successful candidate is expected to teach an undergraduate course in microbiology as well as an advanced course in his/her area of interest, to establish an active research program with external grant support, and to interact with other microbiology faculty. The Department of Biology has 34 full-time faculty and offers B.S., M.S., and Ph.D. degrees. Faculty in the department have opportunities to interact with members of other University units, including the Department of Marine Science and the Colleges of Medicine and Public Health. The USF is located in a major growth area on the Florida Gulf Coast and has a good interface with several research and development parks in the immediate vicinity. Applicants should submit curriculum vitae, research plan, and three letters of recommendation to: **Microbiology Search Committee, Department of Biology, University of South Florida, Tampa, Florida 33620.** Closing date for applications is 8 March 1985. *The University of South Florida is an Equal Opportunity/Affirmative Action Employer and applications from women and minorities are encouraged.*

ASSISTANT PROFESSOR OF ZOOLOGY

Tenure-track. Competitive salary; starting date: September 1985. Primary emphasis on teaching undergraduate courses including: aquatic ecology, ichthyology, and general zoology. Develop research program. Ph.D. in aquatic ecology/fisheries biology; strong background with invertebrates desired. Send letter of application, résumé, and three letters of recommendation to: **Dr. J. Neil Jensen, c/o Personnel Department—1016, Weber State College, Ogden, Utah 84408.** Application deadline: 15 March 1985. *An Affirmative Action/Equal Opportunity Employer, M/F.*

ASSISTANT RESEARCH NEUROCHEMIST, Department of Neurology, University of California, San Francisco. Candidate should have at least 2 years of postdoctoral experience in signal transduction in the nervous system involving protein kinases. Knowledge of nicotinic acetylcholine receptor biochemistry and extensive experience with monoclonal antibody production, immunohistochemistry, and tissue culture is required. Candidate should have experience in developmental studies in the nervous system including application of molecular biology techniques to developmental neurobiology: specifically, messenger RNA preparation and translation in vivo and in vitro. Please submit complete curriculum vitae, including list of publications and three letters of reference, by 1 March 1985 to: **Dr. Adrienne Gordon, Ernest Gallo Clinic and Research Center, San Francisco General Hospital, Building 1, Room 101, San Francisco, Calif. 94110.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

ASSOCIATE DEAN FOR RESEARCH. Applicant must have Ph.D. or M.D. degree and a successful record of basic research. Successful applicant will direct the Medical Center's Office of Research and report to the Dean for Academic Affairs of the Medical Center. Experience in grants administration required. Applicant should qualify for professorial appointment in an academic department and will devote part time to both teaching and research. The position will require promotion of the center's research enterprise in both the public and private sector. Seeking 1 July 1985 commitment. Salary commensurate with credentials and record. Applicants send letter of interest and curriculum vitae to: **Dean for Academic Affairs, George Washington University Medical Center, 2300 Eye Street, NW, Washington, D.C. 20037.**

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR OF ENVIRONMENTAL HEALTH SCIENCES in the Department of Environmental Science and Physiology, Harvard University, School of Public Health.

A multidisciplinary faculty, investigating the effects and control of workplace and community exposure to toxic environmental contaminants, is seeking applications for a faculty position in environmental health sciences. Applicants must have advanced degrees and/or experience in analytical chemistry relevant to environmental/occupational exposure assessments. Applicants must have a Ph.D. in chemistry or chemical engineering or industrial hygiene or related discipline. The person will be expected to develop innovative sampling and analytic methods related to the characterization of process emissions and/or environmental exposures, teach in the graduate programs of the school and collaborate in epidemiologic and toxicologic studies.

Send curriculum vitae, including a list of publications, reprints of several such publications if available, a statement of current and future interests in industrial hygiene, and the names of three individuals who would be willing to respond to requests for evaluation to: **Chairman, ad hoc Search Committee, Dean's Office, Harvard School of Public Health, 667 Huntington Avenue, Boston, Mass. 02115.**

Expression of interest is particularly invited from women and minority candidates.

ASSISTANT OR ASSOCIATE PROFESSOR MOLECULAR GENETICIST/MICROBIOLOGIST

Conduct research and teaching at the assistant or associate professor level. A strong, research-oriented department in the College of Medicine. Well-established department, 12 full-time faculty conducting independent, vigorous research programs. Tenure-track. Ph.D. and Ph.D.-M.D. degree tracks. A new molecular genetics training track has been instituted in the Ph.D. program. Salary is competitive. Teaching loads are modest. Modern well-equipped facilities. Emphasis in infectious diseases, molecular biology, immunology, virology, and pathogenic bacteriology. Send curriculum vitae to: **Dr. Joseph H. Coggin, Jr., Professor and Chairman, Department of Microbiology and Immunology, Laboratory of Molecular Biology, University of South Alabama, College of Medicine, Mobile, Alabama 36688.**

ASSISTANT/ASSOCIATE PROFESSOR IN NUTRITION. Beginning date: September 1985. Qualifications: Ph.D. in human nutrition or closely related area; teaching and research experience. Graduate and undergraduate teaching. Closing date: 15 March or until filled. Letter of application, curriculum vitae, transcripts, and three letters of recommendation to: **Dr. Guendoline Brown, Food and Nutrition Department, North Dakota State University, Fargo, North Dakota 58105. An Equal Opportunity University.**

UNIVERSITY OF FLORIDA—Department of Medicine seeks **ASSISTANT RESEARCH SCIENTIST** in the Division of Nephrology and Hypertension. Candidates must hold Ph.D. degree and should have at least 3 years of postdoctoral experience in physiology or related fields. The individual will have responsibility of research investigating the roles of thromboxane/prostaglandins in renal hemodynamics using micropuncture methods. Recruiting deadline: 1 March 1985. Anticipated starting date: 1 April 1985. Contact: **Cr. S. Wilcox, M.D., Ph.D., Box J-224 JHMC, University of Florida, Gainesville, Florida 32610.** *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT RESEARCH SCIENTIST available 1 July 1985 in mammalian spinal cord electrophysiology and neural recovery of function. Projects principally involve extracellular and intracellular techniques but also include HRP, histochemical, and behavioral methodologies to investigate the mechanisms involved in synaptic transmission, segmental motor control, and recovery of function after spinal cord and peripheral nerve injury. Individuals should have a Ph.D. or M.D. with research accomplishments in cellular neurophysiology, the ability to perform both independent and collaborative research of high quality, and the capacity for teaching at the graduate level. Salary to be based on qualifications and experience. Send curriculum vitae, summary of research interests, and letters of recommendation by 8 March 1985 to: **Dr. G. W. Sybert, Department of Neurological Surgery, Box J-265, University of Florida Health Center, Gainesville, Fla. 32610.**

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

LUDWIG INSTITUTE
FOR CANCER RESEARCH
SYDNEY BRANCH
BLACKBURN BUILDING
UNIVERSITY OF SYDNEY
SYDNEY, NSW 2006
AUSTRALIA

ASSOCIATE DIRECTOR OF RESEARCH

Applications are invited for the post of associate director to head a laboratory research programme aimed at the study of human tumour cell heterogeneity using molecular genetic, cell biological and/or membrane biochemical approaches. The successful candidate will have his/her own research group of between five and eight scientists and will also be responsible for supervising the studies of two other research groups at the branch.

Applications in writing, enclosing curriculum vitae and names and addresses of three referees, should be made to the Administrator at the above address. Salary is by negotiation.

Further information may be obtained from the director, Professor Martin Tattersall. The closing date for applications is 28 February 1985.

The Department of Psychology of the University of Alabama in Birmingham (UAB) invites applications for a position at the ASSOCIATE OR FULL PROFESSOR level for an individual with an established research program in BEHAVIORAL NEUROSCIENCE. UAB is a comprehensive urban university with a student body of over 15,000. The Department of Psychology consists of 18 primary appointment faculty and sponsors a doctoral program with a specialty in behavioral neuroscience in conjunction with the Neuroscience Program of the School of Medicine. Salaries are competitive and excellent laboratory facilities are available. Applicants must present evidence of significant scholarly productivity and must have a record of successful external funding for research. Interested candidates should submit a letter of application, curriculum vitae, and the names of three references to: Joan Lorden, Behavioral Neuroscience Search Committee, Department of Psychology, University of Alabama in Birmingham, Birmingham, Ala. 35294. *Equal Opportunity/Affirmative Action Employer.*

BEHAVIORAL TOXICOLOGIST. U.S. Environmental Protection Agency is seeking candidates for consideration against a potential opening in the area of behavioral toxicology. This position will be located in the Behavioral Toxicology Branch, Neurotoxicology Division, Health Effects Research Laboratory. It is a federal Civil Service (term) position not to exceed 4 years, although subsequent career opportunities are a distinct possibility. Salary range: \$30,549 to \$47,226, depending upon experience.

The successful candidate will be expected to: (i) develop a program of research to evaluate in laboratory animals the consequences of short-term and long-term exposure to environmental chemicals on acquired behavior (learning, memory, and performance), and (ii) closely collaborate with other scientists similarly evaluating morphological, neurochemical, and neurophysiological processes.

The candidate: (i) should possess a Ph.D. in behavioral toxicology or an allied discipline or possess equivalent experience, and/or (ii) have postdoctoral research experience as evidenced by publications in peer-reviewed journals.

Forward curriculum vitae and names of three persons we can contact for references to: Dr. R. C. MacPhail, Chief, Behavioral Toxicology Branch, c/o Personnel Management Division (MD-29), Research Triangle Park, North Carolina 27711, by 11 March 1985.



Xytronyx, Inc.

BIOCHEMIST/ENZYMOLOGIST. Xytronyx, Inc., a young and rapidly growing biotechnology company, has an opening for an enzymologist. This position requires a Ph.D. in biochemistry and at least 2 years of postdoctoral training. Prior experience in the development of enzyme-based diagnostic kits would be helpful but is not required. Xytronyx offers a very competitive salary and benefit package, including possible stock options. Please send résumés and the names of three references to: The Director of Personnel, Xytronyx, Inc., 645 North Michigan Avenue, Suite 645, Chicago, Illinois 60611.

POSITIONS OPEN

ASSOCIATE EDITOR

For staff of multidisciplinary bimonthly scientific journal. Ph.D. or equivalent in some field of physical or biological science and at least 2 years of independent experience required. Some editorial experience preferred. Excellent command of English essential. Send curriculum vitae to: Dr. F. R. Zwanig, Managing Editor, Proceedings Office, National Academy of Sciences, 2101 Constitution Avenue, NW, Washington, D.C. 20418. *An Equal Opportunity Employer.*

The Department of Chemical Engineering at Tufts University has an opening for a full-time faculty position in **BIOCHEMICAL ENGINEERING** starting September 1985. The department has recently acquired a pilot plant facility consisting of three fermentors ranging in capacity from 30 to 400 liters. Applicants should have the capability of developing programs of sponsored research utilizing the facility and a strong interest in teaching courses at the undergraduate and graduate levels. Industrial experience desirable but not essential. Applicants must have a doctoral degree in chemical engineering or closely related field. Rank and salary commensurate with the qualifications of the candidate.

Applications will be accepted until 15 March 1985. Send résumés and names of references to: Professor Gregory D. Botsaris, Department of Chemical Engineering, Tufts University, Medford, Mass. 02155. *Tufts is an Affirmative Action/Equal Opportunity Employer.*

BIOCHEMICAL AND GENETIC TOXICOLOGY

For research program in carcinogenesis and molecular biology. Clinical and laboratory dimensions Ph.D. level with relevant experience. Excellent working conditions. Available immediately. Send curriculum vitae and salary requirements to:

Preventive Medicine Institute/Strang Clinic
55 East 34th Street
New York, N.Y. 10016
Attention: Dr. Daniel G. Miller

BIOCHEMIST/MOLECULAR BIOLOGIST. The Department of Biochemistry, University of Wyoming, invites applications for an 11-month, tenure-track position at the assistant professor level to begin in July 1985. Applicants must have completed a Ph.D. in an appropriate field. Responsibilities include implementation of a vigorous research program, participation in undergraduate and graduate-level teaching and other duties normally associated with departmental function. The department presently has 11 faculty members and will initiate construction of new facilities in 1985. The University is also presently developing a biotechnology program/facility which will involve the Biochemistry Department. Applicants should submit a letter of application (including a description of research interest), curriculum vitae, and three letters of recommendation by 1 March 1985 to: Dr. Jerry Johnson, Department of Biochemistry, University of Wyoming, P.O. Box 3944, Laramie, Wyo. 82071. *The University of Wyoming is an Equal Opportunity Employer.*

BIOCHEMISTRY POSTDOCTORAL POSITION for research involving EPR. Experience in biochemical separations required; EPR training will be provided. Opportunity for teaching biochemistry may be available. Send curriculum vitae, statement of research experience, and three letters of recommendation to: Gareth R. Eaton, Department of Chemistry, University of Denver, Denver, Colo. 80208-0052. *The University of Denver is an Affirmative Action/Equal Opportunity Employer.*

THE UNIVERSITY OF MICHIGAN, CHAIRMANSHIP OF ANESTHESIOLOGY. The University of Michigan is seeking an academic leader to direct the patient care, teaching, and research programs of its Department of Anesthesiology. The chairmanship position also includes a senior rank faculty appointment. Qualifications include: an M.D. degree and Board-certification in anesthesiology; clinical skills; research expertise in a related area; commitment to teaching; and administrative skills and experience in an academic setting. This position also includes an instructional track faculty appointment at the professorial rank. Please respond to: Charles J. Krause, M.D., Chairman, Anesthesiology Search Task Force, c/o Jeanne Kin, Medical Administration Staff Assistant, 1301 Catherine Road, M7330 Medical Science I, Box 025, Ann Arbor, Mich. 48109. *A nondiscriminatory, Affirmative Action Employer.*

McKNIGHT AWARDS FOR INTERDISCIPLINARY RESEARCH PROJECTS IN PLANT BIOLOGY

The McKnight Foundation announces the second series of awards designed to stimulate research and training in basic plant biology as it relates to agriculture. The purpose of the awards is to stimulate new efforts and alliances and to encourage continuing efforts of established groups which emphasize training as a major component of their research.

The McKnight Awards will be few in number and will be granted to groups of investigators whose programs are anticipated to be of outstanding potential significance. Awards will be for a period of 3 years. Funding will be flexible, providing up to a maximum of \$300,000 per award for each year. Indirect costs will be limited to 10 percent.

These awards will permit approaches to research and training that are not normally possible through the usual granting channels. Thus, the awards will make available the resources necessary for interdisciplinary research initiatives that will place a major emphasis on training of pre- and postdoctoral students. Modest funding for a limited number of undergraduate students may be included as an incentive for them to enter careers in fundamental plant biology.

All applicants are asked to submit a preliminary proposal to be received by 1 May 1985 (two pages in length). For those projects which the review committee judges will be most competitive in meeting the objectives of The McKnight Foundation, an invitation will be issued by 1 June 1985 to submit a full proposal by 15 August 1985. The full proposals which receive the committee's recommendations will be announced by 31 December 1985, with funding commencing on 1 July 1986.

Requests for further information and instructions about applications should be directed to: Russell V. Ewald, Executive Vice President, The McKnight Foundation, 410 Peavey Building, Minneapolis, Minnesota 55402.

Medicinal Chemist

The Medicinal Chemistry Department of Smith Kline & French Laboratories has an excellent career opportunity for an outstanding chemist. The selected individual will work in a state-of-the-art research facility (currently under construction) in the Philadelphia suburbs near Valley Forge and will assist in the synthesis and design of molecules destined to interrupt enzymatic processes; interpret analytical data to confirm structures; suggest and examine alternate synthetic routes; and effectively communicate results.

The successful candidate will possess the following:

- M.S. in Chemistry (or equivalent such as B.S. with 3-6 years experience).
- Minimum of 2 years experience in synthetic chemistry.
- Excellent working knowledge of reaction mechanisms.
- Skilled in modern methods of isolation of reaction products.
- Skilled in the use of modern physical methods to assign structure of reaction products.

We offer an excellent compensation, benefits and relocation package as well as the opportunity for personal and professional growth. Please reply in confidence to: George P. Kissell, Jr., Senior Employment Consultant, SMITH KLINE & FRENCH LABORATORIES, a division of SMITHKLINE BECKMAN CORPORATION, 1584 Spring Garden Street, Philadelphia, PA 19101. *Equal Opportunity Employer, M/F/H/V.*

SK&F
A SmithKline Beckman Company

POSITIONS OPEN

BIOLOGIST. Kalamazoo College invites applications for a tenure-track position at the assistant professor level. Teaching responsibilities include general animal physiology, developmental biology, participation in a large general zoology course, and one additional course such as histology, neurobiology, or vertebrate biology. Development of a research program and involvement in college activities also expected. Ph.D. required. Application and three letters of reference should be sent by 1 March 1985 to: **Dr. Charles E. Deutch, Department of Biology, Kalamazoo College, Kalamazoo, Michigan 49007.** *Affirmative Action/Equal Opportunity Employer.*

CELL BIOLOGISTS. Positions available for research scientists with M.S. or Ph.D. degrees in cell biology or immunology. Research involves establishment and in vitro transformation of normal epithelial cell cultures from human and experimental animal tissues. Send curriculum vitae to: **D. D. Johnson, Biochemistry Department, SOUTHERN RESEARCH INSTITUTE, P.O. Box 55305, Birmingham, Ala. 35255-5305.** *An Affirmative Action/Equal Opportunity Employer.*

TEMPORARY POSITIONS

Three full-time, temporary positions anticipated for August 1985. In a department of 37 full-time faculty in a comprehensive university of 25,000 students.

CELL/MOLECULAR BIOLOGIST. Full-time temporary assistant professor faculty position, 15 August 1985 to 15 May 1986. To teach an undergraduate core course in cell and molecular biology and participate in graduate-level courses in cellular or molecular biology. A Ph.D. in cellular or molecular biology is required.

BIOLOGIST. Full-time, 1-year temporary assistant professor position. To begin in August 1985. To teach two courses per semester in areas such as general biology (nonmajors), principles of biology, and general zoology. A Ph.D. is required and a background in physiology is preferred. Renewable.

ANATOMY ASSISTANT. Faculty assistant to start August 1985. A master's degree is required as is experience in human dissection. To assist professional faculty in laboratory teaching and prosection in a gross human anatomy course each semester for undergraduate physical education majors, and to a lesser extent in a course for undergraduate physical therapy majors. The position is renewable.

Closing date is 15 March 1985 (or until a suitable candidate is found). Send curriculum vitae, and names, addresses, and telephone numbers of three references who may be contacted to: **Dr. Marvin J. Starzyk, Chair, Department of Biological Sciences, Northern Illinois University, DeKalb, Ill. 60115-2861.** Telephone: 815-753-1753. *An Equal Opportunity/Affirmative Action Employer.*

CLINICAL LASER BIOPHYSICIST must have master's or Ph.D. in applied physics with a minimum of 5 years of experience in ophthalmic laser research and teaching. Must have previous supervisory and personnel management experience, including management experience, dealing with optical, mechanical, and electronic engineers. Adequate knowledge of ophthalmic physiology in humans and animals is required. Please send curriculum vitae to: **Jean-Marie Parel, Bascom Palmer Eye Institute, P.O. Box 016880, Miami, Fla. 33101.**

Medical University of South Carolina Charleston, South Carolina DEAN, SCHOOL OF MEDICINE

Nominations and applications are invited for the position of **dean** of the School of Medicine, Medical University of South Carolina.

The dean is the chief administrative officer of the School of Medicine and reports directly to the Vice President for Academic Affairs and through him to the President. Candidates must hold an M.D. degree and exhibit substantial accomplishment in scholarship and administration. They should be particularly interested in innovative approaches to medical student education.

Please send letters of application or nominations with résumés to:

Fred A. Crawford, Jr., M.D.
Chairman, Search Committee for
Dean, School of Medicine
Medical University of South Carolina
171 Ashley Avenue
Charleston, S.C. 29425

The Medical University of South Carolina is an Equal Opportunity Employer.

POSITIONS OPEN

CHAIRPERSON DEPARTMENT OF PATHOLOGY

Applications are invited for the position of **professor and chairperson**, Department of Pathology, University of South Carolina (USC) School of Medicine, Columbia, South Carolina. Candidates should have an M.D., Ph.D., or both, a commitment to excellence in medical education, and an established research program with a history of extramural funding. Administrative experience is desired. Applications, including curriculum vitae with research funding, a statement of career goals, and names of three references, should be sent by 31 March 1985 to: **Dr. D. O. Allen, Chairman, Pathology Search Committee, Department of Pharmacology, USC School of Medicine, Columbia, S.C. 29208.** *An Equal Opportunity/Affirmative Action Employer.*

CHAIRPERSON, DEPARTMENT OF DERMATOLOGY AND CUTANEOUS SURGERY

The University of Miami, School of Medicine, invites applications from distinguished dermatologists for the position of **chairperson** of the Department of Dermatology and Cutaneous Surgery. Applicants should have a record of accomplishment in clinical dermatology, clinical training, and research. Individuals with interests in developing a strong basic research program to complement the strong clinical program already existent are especially sought. Applications, including curriculum vitae, bibliography, and names of three references, should be sent by 1 March 1985 to: **J. Wayne Strellein, M.D., Chairman, Dermatology Search Committee, Department of Microbiology and Immunology, University of Miami School of Medicine, P.O. Box 016960 R-138, Miami, Florida 33101.**

A private, independent, international university. An Equal Opportunity/Affirmative Action Employer.

CHEMICAL ENGINEERING, WEST VIRGINIA UNIVERSITY. We are seeking faculty candidates for a tenure-track faculty position for the 1985-1986 academic year. We are especially interested in candidates with research interests in biochemical separations. We will also consider applicants from closely related fields such as applied microbiology or biochemistry if they are capable of participating in our undergraduate and graduate instructional programs. The candidates must have an earned Ph.D. Candidates should have a strong commitment to research, scholarly and professional activity, as well as undergraduate and graduate education. While we prefer to make the appointment at the assistant professor level, we will consider exceptionally well-qualified candidates at a higher rank. Please send a résumé and a list of at least three references or nominations by 1 March 1985 to: **Dr. Joseph D. Henry, Jr., Professor and Chairman, Department of Chemical Engineering, P.O. Box 6101, West Virginia University, Morgantown, West Virginia 26506-6101.** *West Virginia University is an Equal Opportunity Employer.*

CLINICAL NUCLEAR MEDICINE IMAGING PHYSICIST

The Department of Diagnostic Radiology has an opening for a medical physicist. This clinically funded position includes an appointment in Diagnostic Radiology with a primary commitment to nuclear medicine (both general nuclear medicine and nuclear cardiology) and an opportunity to participate in academic programs. Candidates should have a Ph.D. or similar degree in the physical sciences with previous clinical nuclear medicine experience and be Board-certified or -eligible. Although experience in nuclear cardiology would be preferred, a desire to participate in nuclear cardiology is essential. Responsibilities include physics support of routine clinical procedures, development and testing of phantoms for optimization of patient studies, and education including lectures and the development of appropriate laboratories. Qualified applicants should forward curriculum vitae and cover letter highlighting their qualifications and career goals to: **Dr. Joel E. Gray, Mayo Clinic, Rochester, Minn. 55905.** *Mayo Clinic is an Equal Opportunity/Affirmative Action Employer.*

CYTOGENETICIST

Ph.D. or M.D. in cytogenetics with experience in high resolution banding techniques with mammalian cells to start at assistant professor level. Send curriculum vitae to: **Henry Rothschild, M.D., Section of Genetics, Department of Medicine, Louisiana State University School of Medicine, 1542 Tulane Avenue, New Orleans, Louisiana 70112.**

POSITIONS OPEN

DEAN, COLLEGE OF SCIENCE & TECHNOLOGY Winona State University

This position supervises the Departments of Biology, Chemistry, Geology, Industrial Education, Math/Computer Science, and Physics. Supervision is exercised over approximately 45 FTE faculty. The dean reports directly to the Vice President for Academic Affairs and requires strong leadership for the above programs along with the ability to manage the fiscal affairs of the college and work with faculty and faculty organizations within a collective bargaining context.

Winona State University is an institution of 5200 students serving southeastern Minnesota and is one of seven universities in the Minnesota State University System.

A Ph.D. from an accredited institution in a discipline related directly to a department within the college is required, along with a minimum of 5 years of experience in higher education. Salary range for 1984-1985: \$36,800 to \$53,400. Forward requests for applications materials to: **Personnel Office, Winona State University, Winona, Minn. 55987.** Deadline date for completed applications: 22 February 1985.

An Equal Opportunity/Affirmative Action Employer

TENURE-TRACK POSITION ANTICIPATED IN DEVELOPMENTAL NEUROBIOLOGY, UNIVERSITY OF CALIFORNIA, SANTA BARBARA, with a special emphasis on the cellular and/or molecular basis of neural development. Candidate will be expected to participate in a newly formed Neurosciences Research Program and in graduate and undergraduate teaching programs in neurobiology, cell biology, molecular biology, development, immunology, or pharmacology, depending upon area of expertise. Excellence in research, the Ph.D. degree, postdoctoral experience, and a strong commitment to teaching are required. The appointment, if approved, will be effective 1 July 1985 with salary and rank dependent upon qualifications.

Submit curriculum vitae and brief summaries of previous and projected research, and arrange to have at least three letters of reference sent to: **The Chairman, Department of Biological Sciences, University of California, Santa Barbara, California 93105,** by 31 March 1985. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

DEVELOPMENTAL PSYCHOBIOLOGIST. The U.S. Environmental Protection Agency is seeking candidates for consideration against a potential opening in the area of developmental psychobiology/developmental neurobehavioral toxicology. This position will be located in the Behavioral Toxicology Branch, Neurotoxicology Division, Health Effects Research Laboratory. It is a federal Civil Service (term) position not to exceed 4 years, although subsequent career opportunities are a distinct possibility. Salary range: \$30,549 to \$47,226, depending upon experience.

The successful candidate will be expected to: (i) develop a program of research to evaluate in laboratory animals the consequences of perinatal exposure to environmental chemicals on the development of learning and memory, and (ii) closely collaborate with other scientists similarly evaluating morphological, neurochemical, and neurophysiological processes.

The candidate: (i) should possess a Ph.D. in developmental psychobiology or an allied discipline or possess equivalent experience and/or (ii) have postdoctoral research experience as evidenced by publications in peer-reviewed journals.

Forward curriculum vitae and names of three persons we can contact for references to: **Dr. R. C. MacPhail, Chief, Behavioral Toxicology Branch, c/o Personnel Management Division (MD-29), Research Triangle Park, North Carolina 27711,** by 18 March 1985.

ENVIRONMENTAL SCIENCE FACULTY to lead unique 1- to 3-month field programs for student teams at sites located in unusual habitats worldwide. Topics include tropical rainforest ecology, wildlife/marine biology and conservation, natural resource management, environmental geology, aquaculture, limnology, soil conservation, anthropology, and ethology. Honorarium plus expenses paid. Qualifications: Ph.D. or equivalent; field teaching and research. Send curriculum vitae and cover letter to: **Science Program Manager, School for Field Studies, 196 Broadway, Cambridge, Mass. 02139.**

COMMONWEALTH SCIENTIFIC AND
INDUSTRIAL RESEARCH ORGANIZATION
AUSTRALIA

DIRECTOR—INFORMATION AND PUBLIC COMMUNICATION
Remuneration: Not less than A\$54,000 per annum
CANBERRA, ACT

CSIRO conducts scientific and technological research in laboratories located throughout Australia and employs about 7500 staff, of whom some 2900 are professional scientists. The Organization's research activities are grouped into five institutes: Animal and Food Sciences, Biological Resources, Energy and Earth Resources, Industrial Technology, and Physical Sciences.

The Director, Information and Public Communication, will develop policies, structures, and procedures to ensure effective communication between CSIRO and business, government, academic and community leaders, and with the general public. The director will be expected to take new initiatives and make creative decisions.

An important aspect of the director's duties is the leadership and management of the organization's central library and library-based information services, and publishing, editorial, and data base services. Communication activities encompass publications, films, conferences, public presentations, and displays covering both scientific and general information about CSIRO and its research for all audiences.

The new director will be a senior manager directly responsible to the executive.

Appointment to the position of Director, Information and Public Communication, will be for an initial term of 5 to 7 years, with the possibility of a further term if mutually desired, or of transfer to another senior position in the organization.

FURTHER INFORMATION: Expressions of interest and requests for further information will be treated with strict confidence. They should be directed to:

Dr. G. H. Taylor
Member of the Executive
CSIRO Headquarters
P.O. Box 225
DICKSON, ACT
AUSTRALIA 2602

as soon as possible, and not later than 28 February 1985.
CSIRO is an Equal Opportunity Employer

STATEWIDE DIRECTOR OF MESA

MESA is a \$2-million program that delivers educational services to underrepresented minorities in junior highs, high schools, and universities and colleges at over 160 locations throughout California. The program is aimed at ensuring that these students successfully prepare for and major in math and science-related fields. The statewide director of MESA is responsible for the coordination of MESA's activities and reports to the director of the Lawrence Hall of Science (LHS) at the University of California, Berkeley, which administers MESA. The statewide director is charged with developing fund-raising, programmatic, and research agendas; supervising senior staff who in turn help to define and implement these agendas; operationalizing policies as outlined by the LHS director; linking MESA with school districts, universities and colleges, elected officials, and corporate donors; developing and writing funding proposals to foundations and agencies; and ensuring that the various facets and levels of day-to-day operation work toward MESA's programmatic objectives.

We are seeking an individual with substantial managerial experience and the ability to operate a multi-level organization with regional field offices and both public and private constituencies. The candidate should be able to exercise a strong leadership and at the same time establish a collegial atmosphere, working smoothly with other senior professionals and coordinating their activities into an effective educational effort. The initial appointment will be for the period of 1 July 1985, or sooner if possible, to 30 June 1986, with renewal based on annual review of performance by the LHS director.

Qualifications:

- Advanced degree in relevant field. Formal training in management and business desirable.
- Experience in managing complex organizations.
- Experience in working with minority programs preferred.
- Experience in interacting with top executives in education, industry, and government.
- Experience in teaching and/or administration in secondary school or university educational areas preferred.
- Proven fund-raising abilities.
- Strong oral and written communication skills.

Salary range: \$44,800 to \$56,400, dependent upon experience.

Application deadline: Submit letter of application, résumé, and three references before 1 March 1985 to:

Dr. Marjorie Gardner
Director, Lawrence Hall of Science
University of California
Berkeley, Calif. 94720

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

TECHNOLOGY TRANSFER

**LEARN HOW THIS COUNTRY'S FIRST
MAJOR TRANSFER OF TECHNOLOGY—
FROM A NATIONAL LAB TO A PRIVATE
CORPORATION—WAS ACCOMPLISHED.**

Who should attend: Laboratory officials and researchers seeking new sources of capital and venture capitalists and high-tech entrepreneurs seeking new technologies.

When: Thursday, February 21, 1985

Where: Santa Fe Hilton, Santa Fe, New Mexico

Speakers: Donald M. Kerr, *Director, Los Alamos National Laboratory*; Dr. Bruce Merrifield, *Assistant Secretary of Commerce for Technology, Productivity and Innovation*; Irving Weiman, *Prudential-Bache Securities*; A. David Silver, *Santa Fe Private Equity Fund* and Ross U. Robinson, *CEO, Mesa Diagnostics Inc.* George Gilder, author of *The Spirit of Enterprise*, will be the featured luncheon speaker.

For further details, call or write: Mary Freitas,
Santa Fe Private Equity Fund, 524 Camino del
Monte Sol, Santa Fe, New Mexico 87501.
Telephone: (505) 983-1769.

FACULTY POSITIONS

The Department of Microbiology at the Mount Sinai School of Medicine invites applications for faculty positions in each of the following disciplines:

- a) Molecular/Microbial Genetics
- b) Immunobiology: Molecular or Cellular
- c) Animal Virology

Appointment is possible at both ranks dependent upon qualifications and experience. These positions offer exceptional opportunities to conduct original research in an environment of active research and teaching located in a modern facility on Manhattan's upper East Side.

Those interested should submit curriculum vitae, a list of publications, a summary of current research interests and names of three references who may be contacted to: **Search Committee Chairman, Department of Microbiology, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, New York 10029.** The Mount Sinai School of Medicine is an Equal Opportunity/Affirmative Action Employer.

**The Mount Sinai
School of Medicine**



POSITIONS OPEN

DIRECTOR GENERAL

International Center for Living Aquatic Resources Management (ICLARM)

The position of director general of ICLARM will become available in mid-1985. The director general has responsibility for the supervision and direction of ICLARM, including planning and implementation of research programs, responsibility for fund-raising and maintenance of communications with fisheries research and development organizations worldwide. Regular travel is required.

Qualifications required: (i) scientific and academic background relevant to ICLARM, (ii) demonstrate capacity and experience in fisheries development and management, particularly in tropical countries, (iii) ability to work together with fellow scientists, research institutions, fisheries agencies and governmental entities, national and international, (iv) ability to handle administrative matters, and (v) ability to deal effectively with fund-raising activities.

Duty station is in Manila, Philippines. Salary is commensurate with qualifications. Allowances are generous and roughly equivalent to those of International Agricultural Research Centers.

Request for further information and application should be addressed to: **Dr. James A. Storer, Chairman, Search Committee, 5524 27th Street, NW, Washington, D.C. 20015.**

SAN ANTONIO, TEXAS—DIRECTOR OF DENTAL RESEARCH and the Center for Oral Health Research, The University of Texas Health Science Center at San Antonio Dental School. Academician/scientist to fill position in an innovative and expanding dental school research program. Responsibilities include organization, coordination, and assistance in the development of interdisciplinary basic science, clinical science, behavioral science, and health economic research programs, in conjunction with the development of a Center for Oral Health Research. The position also offers an opportunity to develop independent research activities. D.D.S., M.D. and/or Ph.D. required. Send curriculum vitae to: **Dr. Richard Carr, Dental Dean's Office, 7703 Floyd Curl Drive, San Antonio, Texas 78284.** The University of Texas Health Science Center is an Equal Opportunity/Affirmative Action Employer.

ECOLOGIST—FIELD BIOLOGIST. Tenurable faculty position at the assistant professor level. Position is responsible for the field program within the department including summer field trips. Ph.D. and demonstrated interest and success in teaching required. Emphasis on teaching, but research interest desirable. Send curriculum vitae, three letters of recommendation, and all transcripts by 1 March 1985 to:

**Dr. James P. McKeown, Chairman
Department of Biology
Millsaps College
Jackson, Miss. 39210**

**SAN DIEGO STATE UNIVERSITY
ECOSYSTEMS ECOLOGIST** with experience in integrated research programs for a tenure-track position to start September 1985. Rank and step commensurate with experience. Suitable specialties include nutrient cycling, decomposition processes, plant-animal interactions, or ecosystems modeling. Teaching may be in either ecology or systems ecology. Development of an active research program with the Systems Ecology Research Group and with other members of the ecology faculty is expected. Postdoctoral research experience is desirable. Candidates should request three letters of recommendation and send a representative description of research interests, curriculum vitae, and representative reprints to: **Dr. Walter C. Oechel, Biology Department, SAN DIEGO STATE UNIVERSITY, San Diego, California 92182-0057, by 15 March 1985.** An Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION IN MEDICAL MICROBIOLOGY

Medical microbiologist to fill tenure-track position beginning September 1985. Ph.D. and/or M.D., postdoctoral training required. It is expected that the candidate will establish an innovative and active research program. Send curriculum vitae, names and addresses of three references, copies of three representative publications, and statement of research goals by 15 March 1985 to: **Chairperson, Medical Microbiology Search Committee, Biology Department, San Diego State University, San Diego, Calif. 92182.** An Affirmative Action/Equal Opportunity/Title IX Employer.

POSITIONS OPEN

DIRECTOR NATIONAL MUSEUM OF NATURAL HISTORY

THE SMITHSONIAN INSTITUTION invites applications for the position of **DIRECTOR, NATIONAL MUSEUM OF NATURAL HISTORY**, Washington, D.C. The Museum is responsible for the acquisition, curation, and preservation of collections of objects of natural history, archeology, and ethnology. As an international research center, the Museum conducts basic research in the natural sciences and on the origins and development of man. The Museum also develops and presents exhibits for public viewing which display the variety of life forms and cultural systems that have developed throughout the world. Candidates should have a high degree of scholarly attainment and recognition in a field of natural science or anthropology; breadth of scientific knowledge and understanding; familiarity with academic and research institutions and leadership ability. Interested applicants should submit a Standard Form 171, Personnel Qualifications Statement, and curriculum vitae and bibliography by 1 March 1985 to: **Office of Personnel Administration, Smithsonian Institution, Washington, D.C. 20560; Attention: MPA-EX-01-85(S).** Inquiries may be directed to: **Dr. David Challinor, Assistant Secretary for Science, telephone: 202-357-2939.** An Equal Opportunity Employer.

FACULTY POSITION

Tenure-track faculty position at the assistant professor level starting 3 September 1985. Position requires a Ph.D. with experience in molecular genetics and medical microbiology. Teaching, research, and grant writing experience desirable. Candidate is expected to develop a course in biotechnology and to establish a research program in area of specialty and to assist in teaching medical and general bacteriology. Salary competitive. Submit curriculum vitae, official transcripts, and three letters of reference by 2 April 1985 to:

**M. A. Rouf, Ph.D., Chairman
Department of Biology and Microbiology
University of Wisconsin-Oshkosh
Oshkosh, Wis. 54901**

The University of Wisconsin-Oshkosh is an Equal Opportunity/Affirmative Action Institution.

FACULTY POSITION. Tenure-track faculty position in the Department of Chemistry at the University of Wisconsin-Parkside. Rank open. Applicants must be committed to excellence in research and teaching. We are seeking a physical chemist or biophysicist qualified to teach physical chemistry lecture/laboratory courses. A strong background in instrumentation is essential. Familiarity with the interfacing of microprocessors to laboratory devices is desirable, as is a research interest in the use of computer graphics for molecular modeling. Especially valuable would be familiarity with the Evans and Sutherland PS 300 Graphics System. Applications will be reviewed on 8 March 1985. Please submit curriculum vitae, including a description of future research plans, and arrange to have three letters of recommendation sent to: **Professor Bruce Branchini, Department of Chemistry, University of Wisconsin-Parkside, Box 2000, Kenosha, Wis. 53141.** The University of Wisconsin-Parkside is an Equal Opportunity/Affirmative Action Employer.

Biology Department: full-time, tenure-track **FACULTY POSITION IN BIOLOGY** available in September 1985. Ph.D. biologist preferred. Primary duties are to teach introductory biology courses for non-science majors and to develop and teach a behavioral biology course for biology majors. College teaching experience is required. Rank and salary are negotiable. Send résumé, three letters of reference, and official transcripts to: **Professor Albert F. Answini, Chairperson of Search Committee, Biology Department, Kutztown University of Pennsylvania, Kutztown, Pa. 19530.** Kutztown University is an Affirmative Action/Equal Opportunity Employer and actively solicits applications from qualified minority applicants. Last date for receiving complete applications is 1 April 1985.

POSITIONS OPEN

UNIVERSITY OF CALIFORNIA Cooperative Extension Extension Entomologist Riverside Campus

An academic career track appointment, subject to administrative review of position and incumbent's performance prior to end of 3-year period.

Identify and provide effective, safe, and economical solutions to insect, mite, and other invertebrate pest problems on ornamental, including floral and foliage plants, outdoor nursery crops, urban horticulture, and turfgrass, emphasizing the use of pest management principles. Provide leadership in 4-H entomology. Assure affirmative action in development and delivery of programs. Graduate education in entomology or closely related field plus experience. Salary in associate level rank. Contact: **Cooperative Extension Personnel, University of California, Berkeley, Calif. 94720. Telephone: 415-644-4320.** Closes: 29 March 1985. Refer to Number A-84-188.

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

The Department of Immunology and Microbiology, Wayne State University, invites applications for **TENURE-TRACK FACULTY POSITIONS (two)** at the rank of assistant or associate professor. Applicants must have a Ph.D. and/or M.D. degree with postdoctoral experience in the areas of immunogenetics or eukaryotic molecular genetics and be available no later than summer 1985. Applicants must have an intense interest in teaching medical and graduate students and will be expected to develop an independent research program as well as to supervise graduate student research. Send curriculum vitae, a short statement of research interests, and the names of three references to: **Dr. Paul C. Montgomery, Chairman, Department of Immunology and Microbiology, Wayne State University School of Medicine, 540 East Canfield Avenue, Detroit, Mich. 48201.** An Equal Opportunity/Affirmative Action Employer.

FISH BIOLOGIST. A first-class biologist specializing in the experimental biology of juvenile fish and fish larvae is required for a tenure-earning position (assistant to full professor). The successful candidate will be expected to utilize the Experimental Marine Fish Hatchery, a major new facility which will be completed summer 1985. Send letter of application with details of experience, copies of selected reprints (no more than four), and the names and addresses of three referees by 1 April 1985 to:

**Dr. Peter Lutz, Chairman
Division of Biology and Living Resources
Rosenstiel School of Marine and Atmospheric Science
University of Miami
4600 Rickenbacker Causeway
Miami, Florida 33149**

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

GENETIC TOXICOLOGIST (POSTDOCTORAL POSITION). **FMC CORPORATION**, Chemical R&D Center, located in Princeton, N.J., has an exceptional position available in our modern genetic toxicology laboratories from March 1985 to December 1986. Major position responsibilities include: developing and validating the CHO-HGPRT forward gene mutation assay at our facility. Opportunity exists for publication of research results and exposure to other toxicologic discipline. Major position requirements include: a minimum of 2 years of experience with tissue culture of mammalian cells, and in-depth knowledge of in vitro mutagenicity assays, plus a Ph.D. in toxicology, biochemistry, molecular biology, genetics, or a related field. **FMC CORPORATION** offers an excellent compensation package commensurate with your background, a full range of corporate benefits, and an exciting and challenging work environment. Interested individuals should send their résumé to: **Employment Manager, FMC CORPORATION, Chemical R&D Center, Box 8, Princeton, N.J. 08540.** An Equal Opportunity Employer, M/F.

INSECT SYSTEMATIST. **Royal Ontario Museum, Department of Entomology, 100 Queen's Park, Toronto, Ontario, Canada M5S 2C6.** Tenure-stream position available at associate or assistant curator level. Ph.D. with substantial research, field, curatorial, and communication experience. Starting June 1985, negotiable. Application deadline 31 March 1985. Write for further details to: **Search Committee, c/o Dr. G. B. Wiggins.**

TOXICOLOGY/BIOCHEMICAL RESEARCH CAREER OPPORTUNITIES

R.J. REYNOLDS TOBACCO COMPANY, an affiliate of **R.J. REYNOLDS INDUSTRIES, INC.**, has the following career opportunities in its Research and Development Department.

TOXICOLOGY

Applicants should possess the following:

- Ph.D./DVM or MD with experience in metabolism, pharmacokinetics or mutagenesis research.
- 5 years laboratory experience in one or several of these areas.
- Board certification in toxicology is highly desirable.

This senior level laboratory position functions as a study director and a team leader. Position has responsibility for conceiving, planning, executing and interpreting research in areas of metabolism, pharmacokinetics and mutagenesis research. Responsibilities also include supervising staff of biochemists and genetic toxicologists engaged in toxicology research in these areas.

TOXICOLOGY/PATHOLOGY

Applicants should possess the following:

- Ph.D./DVM/MD with experience in inhalation toxicology, immunotoxicology or clinical pathology.
- Board certification in toxicology or pathology highly desirable.

This senior level laboratory position functions as a study director and a team leader. Position has responsibility for conceiving, planning, executing and interpreting research in the areas of inhalation toxicology, immunotoxicology and clinical chemistry and hematology. Responsibilities also include supervising staff of toxicologists engaged in research in the areas of inhalation toxicology and immunotoxicology and clinical chemistry.

BIOCHEMISTRY/ METABOLISM/ PHARMACOKINETICS

Applicants should possess the following:

- Ph.D./DVM/MD with minimum of 3 years experience in metabolism and/or pharmacokinetics.
- Board certification desirable.

This function will conduct research on materials or chemicals of special interest with emphasis on metabolism and pharmacokinetics. Responsibilities also include designing, conducting and interpreting experiments and evaluating existing data and toxicological information on selected chemicals.

TOXICOLOGY

Applicants should possess the following:

- Ph.D./DVM/MD with post-doctoral experience in inhalation toxicology and/or dermal toxicology.

This entry level laboratory function is responsible for conducting research on materials or chemicals of interest with emphasis on inhalation toxicology.

These positions offer excellent opportunities for further professional growth and development. Salary commensurate with ability and experience. Winston-Salem, N.C. location with excellent benefits package. Send resume and salary requirements, in confidence, to: **Mr. Jeffrey M. Christopher, Corporate Research Recruiter, R.J. REYNOLDS INDUSTRIES, INC., World Headquarters Building, Winston-Salem, N.C. 27102.**
An Equal Opportunity Employer M/F

MUTAGENESIS

Applicants should possess the following:

- Ph.D./DVM/MD with minimum of 3 years experience in genetic toxicology.
- Board certification desirable.

This function will conduct research on materials or chemicals of interest with emphasis on mammalian cell culture bioassay systems. Systems may include *in vivo* models. Responsibilities also include designing, conducting and interpreting experiments and evaluating existing data and toxicological information on selected chemicals.

INHALATION TOXICOLOGY

Applicants should possess the following:

- Ph.D./DVM/MD with minimum of 3 years experience in inhalation toxicology.
- Board certification desirable.

This function will conduct research on materials or chemicals of interest with emphasis in inhalation toxicology. Responsibilities also include designing, conducting and interpreting experiments and evaluating existing data and toxicological information on selected chemicals.

IMMUNOTOXICOLOGY

Applicants should possess the following:

- Ph.D./DVM/MD with minimum of 3 years experience in immunotoxicology research.
- Board certification desirable.

This function will conduct research on materials or chemicals of interest with emphasis on immunotoxicology. Systems or bioassays used may include *in vivo* or *in vitro* models. Responsibilities also include designing, conducting and interpreting experiments and evaluating data and toxicological information on selected chemicals.

CLINICAL CHEMISTRY/ CLINICAL PATHOLOGY

Applicants should possess the following:

- Ph.D. in clinical chemistry, clinical pathology or related field of science or BS/MS with minimum of 5 years experience in clinical chemistry or clinical pathology.
- Certification in medical technology desirable.

This function is responsible for conducting research on materials or chemicals of interest in the area of clinical chemistry and hematology. Responsibilities also include providing support to ongoing toxicology experiments by evaluating the effects of selected chemicals on the blood and urine of laboratory animals.



**Tobacco Products
Foods & Beverages
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RJReynolds Industries, Inc.

PROJECTS MANAGER TOXICOLOGY

The Chemical Group of American Cyanamid Company is seeking applicants for the position of Projects Manager, Toxicology and Product Safety Department, at our Wayne, New Jersey, facility.

Responsibilities will include formulating, implementing, monitoring, and interpreting toxicological studies. Additionally, this individual must be capable of interpreting and reporting study findings in accordance with regulatory agency requirements.

Candidates must have a Ph.D. degree from a recognized university and at least 3 years' experience in toxicology. Candidates should have experience with the conduct of scientific studies for regulatory agencies.

Cyanamid offers competitive salaries, excellent benefits, and a tradition of excellence in toxicology. For consideration, forward a resume with salary history to: Mr. J. H. Ferguson.



American Cyanamid Company

One Cyanamid Plaza
Wayne, NJ 07470

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RESEARCH SCIENTIST Biochemistry

Through 60 consecutive years of growth, Ayerst Laboratories, subsidiary of Fortune 100 American Home Products, has maintained its commitment to research as the basis for increasing volume.

Today, more than ever, we view research as the key to the future, the cornerstone for enhancing our strong position. To accommodate greatly expanded research activity, we have opened a state-of-the-art facility in Princeton, New Jersey.

The Biochemistry Department has an entry level position available for a Ph.D., preferably with postdoctoral training with experience in receptor binding assays and biogenic amine uptake and turnover, aimed at the discovery of new drugs and/or their mechanism of action. Experience with a broad variety of analytical, radioligand and clinical chemistry techniques would be an asset.

Ayerst offers excellent starting salaries and benefits package together with ultra-modern facilities in a beautiful New Jersey setting. Interested candidates should send their resume indicating current salary earnings to: PERSONNEL MANAGER



AYERST LABORATORIES RESEARCH, INC.

Subsidiary of American Home Products Corp
CN 8000, Dept. D.L. Princeton, NJ 08540
An equal opportunity employer M/F/H

POSITIONS OPEN

GROSS ANATOMIST

Experienced educator sought to direct medical gross anatomy course beginning in fall 1985. We seek a dedicated teacher who is interested in providing an outstanding educational opportunity for medical students, graduate students, and postgraduates. Implementation of modern teaching tools is desirable. Open rank. A research interest in medical education, anthropology, cell biology, or neuroscience is beneficial. Forward curriculum vitae and the names of three potential referees to:

Dr. John R. Sladek, Jr.
Professor and Chairman
Department of Anatomy
University of Rochester
School of Medicine & Dentistry
601 Elmwood Avenue
Rochester, New York 14642
Equal Opportunity Employer, M/F

VALDOSTA STATE COLLEGE, Valdosta, Georgia. **HEAD, DEPARTMENT OF BIOLOGY**. Valdosta State College is accepting applications for the position of head, Biology Department, a tenure-track, 12-month appointment carrying the rank of associate or full professor. Assignment includes 1/3 administration, 2/3 teaching. Position to be filled by 1 July 1985. Deadline for applications is 22 February 1985. Ph.D. in the life sciences required. Teaching and administrative experience preferred. *An Affirmative Action/Equal Opportunity Employer*. Send application, current resume, transcripts, and names, addresses, and telephone numbers of three references to: E. Edward Sheeley, Ph.D., Department of Biology, Valdosta State College, Valdosta, Ga. 31698.

HEAD AND PROFESSOR, DEPARTMENT OF BIOLOGICAL SCIENCES. The College of Liberal Arts and Sciences at the University of Illinois at Chicago invites applications and nominations for head of the Department of Biological Sciences. Candidates must have a doctoral degree, a distinguished record of scholarly achievement in the biological sciences (including substantial grant support), demonstrable administrative ability, and a commitment to undergraduate and graduate teaching. The successful candidate, who will assume office on 1 September 1985, will be expected to provide leadership in a growing department currently with 39 faculty. The department offers diverse training leading to B.S., M.S., D.A., and Ph.D. degrees. Applications, including curriculum vitae and publications list, and the names, addresses, and telephone numbers of at least four referees, or nominations should be sent to: Dr. Louise E. Anderson, Chair, Head Search Committee, Department of Biological Sciences (m/c 066), The University of Illinois at Chicago, Box 4348, Chicago, Illinois 60680. Telephone: 312-996-4547. The position will be open until filled, but in order to be assured of consideration, applications must be received by 1 March 1985. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer*.

Head, Division of Science

Search committee seeks a division head for the Division of Science at Northeast Missouri State University, Kirksville. Northeast recently gained national recognition in being the co-recipient of the G. Theodore Mitau Award for Innovation and Change in Higher Education. Recognition has also come at the state level in the recommendation by the Commission of Higher Education that Northeast become the premier liberal arts and science university in Missouri.

The Science Division is one of 13 academic divisions and serves approximately 600 majors with 35 full-time faculty members representing the following disciplines: biology, chemistry, physics and science education. An MS program is offered in biology plus an MA program in science education, with emphasis in a variety of science options.

Applicants must have an earned doctorate in a science field with an outstanding academic record and demonstrated scholarship. Candidates with documented skills in leadership, administration, curriculum development, research and grantsmanship are desired. Salary is negotiable based on qualifications and experience.

Please forward letter of application, curriculum vitae, academic transcripts (undergraduate and graduate) and three letters of reference to: Dr. Gary Sells, Search Committee, Division of Science, Northeast Missouri State University, Kirksville, MO 63501.

Application deadline is March 15, 1985, or until position is filled.

NMSU

NMSU is an equal opportunity employer.



KING FAISAL UNIVERSITY
College of Medicine and Medical Sciences
DAMMAM, SAUDI ARABIA

Applications are being invited from qualified and experienced candidates for the following positions in the department of Microbiology:

PROFESSORS & ASSOCIATE PROFESSORS

Ph.D. or M.D. degree in the area of specialization is required.

The successful candidates will be expected to initiate and participate in research programs in addition to teaching responsibilities. The candidates must possess proven teaching experience in medical microbiology or immunology at a recognized medical school with publications in international journals. Holders of similar academic posts are particularly encouraged.

Please obtain application form from:

KING FAISAL UNIVERSITY
U.S. Recruiting Office
2425 West Loop South, Suite 540
Houston, Texas 77027
800-231-0792

Deadline for receiving applications is April 1, 1985.

**THE FIRST WORD IN...
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Abbott Laboratories has been an upfront leader in the research, development and introduction of successful insect control products. Today, we're expanding that position through basic and applied research in insect pathology utilizing bacteria and fungi.

**ENTOMOLOGIST/
INSECT
PATHOLOGIST**

This key position joins a research team working to improve strains of pathogens for commercialization, and existing bioassay procedures used in both laboratory and field research. The selected candidate will have a Ph.D. in Microbiology, Bacteriology or Insect Pathology and significant research or field experience in insect pathology, particularly in the area of bacterial and fungal pathogens. Additional laboratory bioassay or nematology experience is preferred. Good communication skills are required.

Abbott Laboratories is a \$2.9 billion corporation headquartered in an attractive suburban setting just 30 miles north of Chicago. We provide excellent salaries and full benefits, including profit sharing and a stock retirement plan, in a stimulating professional environment. For consideration, send a resume with salary history, in confidence, to: **Jeffrey Luke/Corporate Placement**. Abbott is an Affirmative Action Employer.

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re important to employees at Genetics Institute. We apply the knowledge gained in modern biology to generate advances in human healthcare, agriculture and chemicals. Our achievements in these areas rank us among the top firms in the biotechnology industry and result in an exceptionally stimulating scientific environment.

We are currently expanding our research and development efforts and have openings in four areas. We offer an excellent salary and complete benefits package. Qualified candidates should forward their resumes, in confidence, to: Barbara Covell, Genetics Institute, 25 Longwood Avenue, Boston, MA 02115

Molecular Biology

We have several openings available at all career levels (Ph.D./M.S./B.S.) for highly motivated, talented individuals with a strong research background in rDNA technology. Additional expertise in one of the following areas would be desirable: tissue culture, cDNA cloning, DNA chemistry, bacterial or mammalian expression systems.

Molecular Plant Breeding

We are looking for several highly motivated, independent individuals at all career levels (Ph.D./M.S./B.S.) to join our agricultural applications program. Candidates should have a strong research background in the biology of corn, with additional expertise in one of the following areas: biochemistry, cytogenetics, genetics, molecular cloning or tissue culture.

Protein Biochemistry

We seek a highly motivated biochemist to join our protein purification group. The ideal candidate will have a Ph.D. in biochemistry with 0-3 years postgraduate experience and a thorough knowledge of bioseparation techniques. Experience in protein and glycoprotein characterization would be a plus. An interest in enzymology and structure/activity study is desired.

Chemistry/Enzymology

We currently have two openings, one Ph.D. and one MS/BS level, for individuals with a strong background in enzymology and organic chemistry. The ideal candidates will have experience in purification, characterization, kinetics, chemical modification and immobilization of proteins.

Genetics Institute

POSITIONS OPEN

HISTOLOGY, NEUROANATOMY, AND MICROBIOLOGY LABORATORY INSTRUCTORS

Two full-time laboratory instructors with responsibilities for laboratory instruction in at least two of the above areas. Requirements: master's/Ph.D. degree and demonstrated teaching ability. Candidates should send detailed curriculum vitae, transcripts, and three letters of reference by 1 March 1985 to: **Sister John Karen Frei, O.P., Ph.D., Dean, Division of Biological and Biomedical Sciences, Barry University, Miami Shores, Fla. 33161. An Equal Opportunity Employer.**

INSTRUCTOR/POSTDOCTORAL ASSOCIATE to study cloned rDNA expression in normal and disease states such as cancer, autoimmune diseases. DNA recombinant techniques, RNA polymerase enzymology, immunological techniques, in vitro transcription will be used. Send résumé and three references by 15 March 1985 to: **Dr. Samson T. Jacob, Department of Pharmacology (J1), The Pennsylvania State University College of Medicine, P.O. Box 850, Hershey, Pa. 17033. Affirmative Action/Equal Opportunity Employer.**

The Biology Department, St. Lawrence University, is accepting applications for two tenure-track positions at the assistant professor level (Ph.D. required):

1) **INVERTEBRATE BIOLOGIST.** To teach general embryology at the sophomore level, and courses in invertebrate biology such as (but not limited to) entomology, parasitology, or invertebrate physiology or zoology.

2) **PLANT POPULATION BIOLOGIST.** Ph.D. To teach general genetics, and other courses in population biology, plant biology, or genetics such as (but not limited to) evolution, plant physiology, or population genetics.

Research expected. Responsibilities begin week of 26 August 1985. Send letters of application, curriculum vitae, official transcripts, reprints, and letters from three referees by 15 March 1985 to:

**Chair, Biology Search Committee
(Invertebrate or Plant)
Biology Department
St. Lawrence University
Canton, N.Y. 13617**

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IN VITRO FERTILIZATION—EMBRYO TRANSFER. We are seeking candidates with knowledge and working experience in tissue culture and gamete maturation, fertilization, and cleavage in human and/or animal concepti. Responsibilities include incubation of human ovum for in vitro fertilization, as well as development of active research program. Candidates must have a Ph.D. or equivalent degree. Salary commensurate with experience. **Box 32, SCIENCE.**

MEDICAL MICROBIOLOGY

Application is invited for a faculty position effective August 1985. Master's Program in Biomedical Sciences requires Ph.D. faculty with a strong commitment toward excellence in teaching. Responsibilities include teaching lecture and laboratory, advising and counseling students. Applicant should have active research interests. Rank and salary open. Candidates should send detailed curriculum vitae, transcripts, and three letters of reference by 1 March 1985 to: **Sister John Karen Frei, O.P., Ph.D., Dean, Division of Biological and Biomedical Sciences, Barry University, Miami Shores, Florida 33161. An Equal Opportunity Employer.**

NEUROPHARMACOLOGIST/EPILEPTOLOGIST

The Oregon Comprehensive Epilepsy Program is seeking a full-time, Board-eligible/certified neurologist to join an active epilepsy program. The position offers the atmosphere and environment of academia with the remuneration and efficiency of private practice. Applicant must have clinical and research experience in anticonvulsant pharmacology and will be expected to expand the neuropharmacology research program. In addition, the applicant will participate in the teaching of neurology residents and have patient care responsibilities. Financial arrangement, support staff, and laboratory space negotiable. Send curriculum vitae and summary of research interests to: **Dr. Kenneth D. Laxer, Good Samaritan Hospital and Medical Center, 1015 NW 22 Avenue, Portland, Oregon 97210.**

POSITIONS OPEN

HUMAN RESTRICTION FRAGMENT POLYMORPHISM LABORATORY. A position is available to set up a laboratory to determine restriction fragment length polymorphisms in DNA from humans. Two years of experience with recombinant DNA techniques required. Ph.D. and knowledge of genetics preferred. Send application and three letters of reference to:

**Dr. Y. Edward Hsia
University of Hawaii at Manoa
Medical Genetics Service
1310 Punahou Street
Honolulu, Hawaii 96826**

no later than 31 March 1985.

An Equal Opportunity/Affirmative Action Employer

Massachusetts General Hospital and Harvard Medical School seek M.D., Ph.D., or M.D.-Ph.D. as a **JUNIOR FACULTY MEMBER** to join gastrointestinal research laboratory for molecular biologic studies on genetic expression of GI hormones and peptides. Applicant should have extensive background in GI physiology together with experience using radioimmunoassays of gastrointestinal and neural peptides as well as proficiency in peptide chemistry, biochemistry, immunochemistry, HPLC, and amino acid analysis. Individual should have expertise in recombinant DNA technology including gene cloning, DNA sequencing, and so forth. Proposed studies will require experience with gene transfer techniques using viral vectors. Send pertinent qualifications to: **Dr. Kurt J. Isselbacher, Gastrointestinal Unit, Massachusetts General Hospital, Boston, Mass. 02114. Equal Opportunity/Affirmative Action Employers.**

The Department of Biology, University of California at San Diego, invites applications for a temporary position as **LECTURER** (sabbatical leave replacement) **IN BEHAVIORAL ECOLOGY.** The 1-year position begins in September 1985. The appointee is expected to teach three 10-week courses: sociobiology, ethology or animal communication, and a field course in behavior and/or ecology. Ph.D. and teaching experience in the above areas required. Salary will be commensurate with experience and rank. Submit curriculum vitae, a brief statement of teaching interests and experience, and the names of three referees by 1 March 1985 to: **Dr. Jack Bradbury, Behavioral Ecology Search Committee, Biology C-016, University of California at San Diego, La Jolla, Calif. 92093. The University of California at San Diego is an Equal Opportunity/Affirmative Action Employer.**

LECTURER, BIOLOGY. Baylor University invites applications for a full-time laboratory instructor for an introductory biology course for nonmajors, beginning 29 August 1985. Preference will be given to applicants having a master's degree in biology, teaching experience, and a cheerful disposition with ability to demonstrate enthusiasm for teaching the same information ten or more times per week. Responsibilities include teaching all laboratory sections, supervising undergraduate and graduate assistants, supervising preparation and maintenance of laboratory materials, and working with the coordinator of the course in laboratory revisions. Curriculum vitae and three letters of reference should be sent before 1 March 1985 to: **Dr. William D. Hillis, Chairman, Biology Department, Baylor University, Waco, Texas 76798. An Equal Opportunity Employer; owned and operated by the Baptist General Convention of Texas.**

MEMBRANE BIOLOGY

The Department of Physiology invites applicants for a tenure-track position at the assistant professor level whose research is in the broad area of membrane biology. The department is well represented in electrophysiology—particularly patch clamp techniques—and seeks additional independent laboratories that will either add to current areas of strength or broaden the scope of the department. Possibilities for collaboration are excellent and start-up support is competitive. Those interested should send curriculum vitae, names of three references, and letter describing research plans to:

**Dr. Robert S. Eisenberg
Bard Professor and Chairman
Rush Medical College
1750 West Harrison Street
Chicago, Illinois 60612**

Rush is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MOLECULAR BIOLOGIST/IMMUNOLOGIST

Research associates to study gene regulation and expression of acute-phase proteins during immune responsiveness. One of these projects involves deciphering the various control and processing steps associated with the synthesis and secretion of these proteins using the monocyte-macrophage culture system. The second project will focus on cloning the genes for these proteins. The ideal candidates for each position will be experienced in current methodology of gene cloning, DNA sequencing and transcriptional and translation regulation. The stipend range is \$18,000 to \$22,000 per year, depending on the level of experience. Interested applicants should send their résumé to: **Dr. John E. Mole, Department of Biochemistry, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, Massachusetts 01605.**

NEUROSCIENCE. Postdoctoral fellow/research associate to participate in study of regulation of sexual behavior in rodents, especially sexual reflexes, their bases in interactions among brain, spinal cord, peripheral nerves, and muscles, and their coordination into integrated behavior. Ph.D. or equivalent in neuroscience, psychobiology, or related field required. Experience with EMG, neurophysical, and/or neuroendocrine techniques desired. Salary negotiable. Applications accepted until position filled. Contact: **Dr. Benjamin D. Sachs, Psychology Department, UNIVERSITY OF CONNECTICUT, Box U-20, Storrs, Conn. 06268. Search Number 4A292. Affirmative Action/Equal Opportunity Employer.**

NMR RESEARCH POSITION

A position at the level of postdoctoral or project scientist is available immediately at the Laboratory of Radiation Biology and NMR Research, Cleveland Clinic Foundation. The qualified individual will join a team working on an on-going project studying the effects of ionizing radiation and chemotherapeutic drugs on mammalian cells, tumors, and tissues by NMR relaxation measurements, flow cytometry, histopathology, and other biophysical and biochemical techniques. NMR facilities include an IBM multi-spec pulsed NMR spectrometer, 0.6 T and 1.5 T NMR imagers for both in vitro and in vivo experiments. Individuals with a degree in biochemistry, biophysics, or cell and tumor biology is required. Experience on magnetic resonance and program-mings will be desirable. Please send an application, copy of curriculum vitae, and three references to:

**Dr. Frank Q. H. Ngo
Laboratory of Radiation Biology and NMR Research
Cleveland Clinic Foundation
9500 Euclid Avenue
Cleveland, Ohio 44106**

An Equal Opportunity Employer

Ph.D. PEPTIDE BIOCHEMIST/CHEMIST

The Biochemistry Department of Zeecon Corporation has an opening for a peptide biochemist to isolate and sequence biologically active peptides from insect sources. Qualifications should include Ph.D. in biochemistry or chemistry with emphasis on peptides, and postdoctoral experience. Candidate must be familiar with peptide isolation techniques, including HPLC, and have experience in amino acid analysis and sequencing (Edman and/or MS). Candidates without postdoctoral experience will also be considered for this position, but as a Zeecon postdoctoral fellow.

Zeecon Corporation developed and marketed the world's first hormonal insecticide, an analog of lipid-like juvenile hormone. Applicants should send curriculum vitae, including names of references and list of publications, to: **Carole Hurd, Zeecon Corporation, P.O. Box 10975, Palo Alto, Calif. 94303-0589. We are an Equal Opportunity Employer.**

ZEECON

POSTDOCTORAL FELLOW. Position available immediately for individual interested in study of: (i) bone marrow stromal cells and hemopoiesis; or (ii) mechanism of embryonic cell migrations. Candidates should have Ph.D. or M.D. and laboratory experience in cell biology and/or biochemistry. Send curriculum vitae and names of two references to: **Dr. Jay Valinsky, The New York Blood Center, 310 East 67 Street, New York, N.Y. 10021. Equal Opportunity Employer.**

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SOHIO RESEARCH and DEVELOPMENT

We have a unique opportunity for you to join a team involved in state-of-the-art thin film materials research. We have recently established a complete ionized cluster beam (ICB) deposition facility. Using the ICB approach, you will lead a project directed towards development of high-performance crystalline thin films for electronic and photovoltaic applications.

You would be working in SOHIO's Corporate Research and Development Center, located in a pleasant suburban Cleveland community. We're dedicated to continuing research in oil production, mining, engineered materials, industrial products and energy research.

You must have a PhD in Physics, Electrical Engineering, or Materials Science and a minimum 3 years' MBE experience related to semiconductors. Ideally, your career background also includes:

- Both hetero- and homoepitaxy using MBE
- Vacuum deposition hardware design and operation
- Thin film characterization

Your demonstrated skills and abilities will be rewarded with an excellent salary, total compensation plan including comprehensive benefits and upward mobility. **SOHIO's comprehensive relocation package for new hires includes all normal moving expenses. Homeowners also qualify for mortgage interest differential allowance, third party home purchase and other features typically restricted to internal transfers.**

If you're looking for a results-oriented position with one of the nation's leading energy companies, start by sending your resume and evidence of scientific contribution, in complete confidence to:

David B. Crow, Senior Executive Recruiter

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KING SAUD UNIVERSITY RIYADH, SAUDI ARABIA COLLEGE OF SCIENCE

The College of Science, King Saud University, has openings on contract basis, for faculty members of Professors, Associate Professors and Assistant Professors who hold Ph.D. and/or academic titles from accredited universities and also for graduate technicians, as of the commencement of the academic year 1985-86, which starts on July 27, 1985.

There are the following departments in the College of Science: CHEMISTRY, BIOCHEMISTRY, PHYSICS, ASTRONOMY, BOTANY, ZOOLOGY, GEOLOGY, MATHEMATICS AND STATISTICS.

Interested candidates are kindly requested to send non-returnable copies of their academic diplomas and specialized experience certificates together with their resumes, including lists of the publications and references, and written application indicating the position applied for and the subjects qualified to teach. Address and telephone number should also be indicated so that contact may be made if selected for interview. Letters of application should be sent to:

DEAN OF THE COLLEGE OF SCIENCE
KING SAUD UNIVERSITY
P. O. BOX 2455
RIYADH 11451, SAUDI ARABIA



NOTEWORTHY BENEFITS:

1. Annual prepaid leave of 45 days for technicians and 60 days for faculty members.
 2. End of service gratuity at the rate of half of one month's salary for each year on completion of two years' service and at the rate of one month's salary for each year upon completion of five years' service.
 3. University provides contractee and family at the end of each year with return air tickets (maximum four full tickets) to country of nationality or country where contractee has been a permanent resident for the last two years immediately preceding University employment.
 4. Unless accomodation is provided, the applicable housing allowance (according to salary scales schedules) is paid by the University.
 5. Unless furnished accomodation is provided by the University, a new contractee receives an amount equivalent to 50% of the applicable housing allowance as furnishing allowance, payable once only throughout term of employment on the condition that contractee has not previously been employed in Saudi Arabia.
 6. A freight allowance equivalent to 50% of one month's salary is paid to the new contractee who has not been previously employed in Saudi Arabia upon appointment (once only).
 7. Persons who were previously employed in Saudi Arabia are considered as new contractees in the sense used in items 5 and 6 above if a period of not less than one year has elapsed since they last left the Kingdom, provided that they had not been paid the allowances indicated in these two items during their former employment.
 8. University may pay actual educational costs of up to four of contractee's non-Arabic-speaking children of ages between 6 and 18 within the limits of SR10,000 for the first child, SR7,500 for the second, SR5,000 for the third and SR2,500 for the fourth child.
 9. Medical care is provided free of charge at University hospitals for contractee and family.
- ADDITIONAL COPY OF WRITTEN DOCUMENTS MAY ALSO BE SENT TO: Mrs. Norma Carbonari, King Saud University Office, 2425 W. Loop S., No. 450, Houston, TX 77027 USA.

POSITIONS OPEN

PHYSICAL OCEANOGRAPHER, Ph.D., for studies in support of biological programs to evaluate the impacts of a coastal powerplant in Southern California. A broad background, with strength in applied mathematics and statistics, is needed for studies involving analyses of coastal currents, nearshore sediment transport and deposition, underwater optics, nutrient chemistry, and plume modeling. The job entails supervision of data collection and data management, analyses of the data, liaison with biological contractors, and a growing share of the responsibility for directing the physical-chemical program. Contact:

Neil Marshall or Karel Zablouddil
at
ECOsystems Management Associates, Inc.
531 Encinitas Boulevard, Suite 119
Encinitas, Calif. 92024
Telephone: 619-436-2594

PLANT PHYSIOLOGIST

The Department of Biology of Trinity College invites applications for a 3-year position as assistant professor. Ph.D. must be completed and postdoctoral research experience is preferred. The candidate will be responsible for a course in vascular plant physiology, in part for a team-taught course in introductory biology, and a course to be agreed upon. Capability for teaching general microbiology will be preferred. In addition to a strong teaching commitment, the candidate will be expected to maintain a significant research program in which undergraduate majors may be involved. Please send curriculum vitae, undergraduate and graduate transcripts, and three letters of reference to: **Dr. Richard B. Crawford, Chairman, Department of Biology, Trinity College, Hartford, Conn. 06106.** Closing date for applications is 15 March 1985. *Trinity College is an Affirmative Action/Equal Opportunity Employer.*

POLYMER SCIENTIST—Southwest Ohio. Study of structure and morphology of thermosetting and thermoplastic resins and those of ordered polymers. Techniques used are WAXS, SAXS, SANS, electron microscopy (dark field, bright field, inelastic electron scattering). Structure-property correlations in ordered polymers. Determination of structure of amorphous material using radial distribution function and other relevant technique. Ph.D. in polymer science with 4 years of experience in the job offered; 40-hour week, 8 a.m. to 5 p.m., \$36,400 per year. Qualified applicants send résumé with this ad to: **The Ohio Bureau of Employment Service, P.O. Box 1618, Columbus, Ohio 43216; attention: B. Phillips. Reference Number J.O. 0724101.**

POPULATION BIOLOGIST

The Department of Biology at Princeton University seeks applicants for a position at the **assistant professor** level. Candidates should seek conceptual advances in population biology through field and/or laboratory work in genetics, evolution, ecology, or behavior. Their interests should overlap and complement those of existing members of Princeton's population biology group: Gould, Grant, Horn, Lisk, May, Rubenstein, and Terborgh. Applicants should send a curriculum vitae and arrange for three letters of reference to be sent to: **Henry S. Horn, Department of Biology, Princeton University, Princeton, New Jersey 08544.**

Princeton University is an Equal Employment Affirmative Action Employer.

POSTDOCTORAL FELLOW

Position for Ph.D. to work on research projects on molecular structure and function of blood cell membrane. Knowledge of fluorescence photobleaching technique essential. Previous training in relevant area desirable. Salary depends on related experience. U.S. citizenship required. Submit curriculum vitae with publication list and three names of references to: **Dr. Shunichi Usami, Department of Physiology, Columbia-Presbyterian Medical Center, 630 West 168 Street, New York, N.Y. 10032.** *An Equal Opportunity Employer.*

POSTDOCTORAL FELLOW

Postdoctoral position immediately available for studies on the molecular basis of temperature-sensitive transforming gene expression and RNA splicing in mutants of murine sarcoma virus. Send curriculum vitae and three letters of reference to: **Edwin C. Murphy, Jr., Ph.D., Department of Tumor Biology, Section of Virology, M. D. Anderson Hospital and Tumor Institute, Houston, Texas 77030.** *The University of Texas is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE. To work on the cloning and expression of thermophilic cellulase genes in prokaryotes. Background in recombinant DNA research and enzymology preferred. Send curriculum vitae and two letters of recommendation to: **Dr. David B. Wilson, Department of Biochemistry, Cornell University, Ithaca, N.Y. 14853.**

Cornell University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION in molecular biology of growth regulation available immediately. Experience in recombinant DNA techniques including library screening, DNA sequencing, and site directed mutagenesis preferred. Due to funding restrictions, applicants must be U.S. citizens or permanent residents. Please send curriculum vitae and names and addresses of three references to: **Dr. R. Stephen Lloyd, Department of Biochemistry, Vanderbilt University, Nashville, Tenn. 37232.**

POSTDOCTORAL POSITION IN BIOCHEMICAL TOXICOLOGY. Position available immediately to study the regulation of mammalian heme biosynthesis and cytochrome P-450 mediated reactions. Research involves enzymology, HPLC, stable isotopes, metal analysis, and in vivo studies. Salary: \$16,000 to \$18,000, depending on experience. Send curriculum vitae and three letters of reference to: **Dr. Alvaro Alvares, c/o Civilian Personnel, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Md. 20814-4799.**

POSTDOCTORAL POSITION available immediately for 1 to 2 years to work on 1- and 2-D NMR (500 MHz) studies of drug-oligonucleotide complexes and the effect of DNA polymorphism on drug binding using equilibrium and stopped-flow methods. Send curriculum vitae and names of three references to: **Dr. Richard Shafer, Department of Pharmaceutical Chemistry, University of California, San Francisco, Calif. 94143.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION IN THE BIOCHEMISTRY AND BIOPHYSICS OF VISUAL TRANSDUCTION AVAILABLE IMMEDIATELY. Research in this laboratory is aimed at (i) elucidating the factors controlling membrane protein conformation changes, and (ii) the functional expression of these changes as they are manifested in visual transduction. The former studies involve measurements of the rates of light induced conformational changes in rhodopsin in characterized lipid systems, while the latter involves studies of the light induced interaction of peripheral membrane enzymes with rhodopsin. Experimental techniques employed include flash photolysis, circular dichroism, fluorescence depolarization and lifetime determinations, NMR, membrane reconstitution, and measurements of light activated enzyme processes. Send curriculum vitae and three letters of recommendation to: **Dr. Burton J. Litman, Department of Biochemistry, University of Virginia Medical School, Charlottesville, Virginia 22908.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION to study molecular biology of blood cell membranes. Work involves gene cloning and/or membrane biochemistry to define protein structure/function. Experience in these areas is highly desirable. U.S. citizenship or immigrant visa status required. Washington University affiliation. Salary highly competitive. Submit letter of interest, curriculum vitae, and telephone numbers of three references to: **Dr. Richard Kahn, Missouri/Illinois Red Cross, 4050 Lindell Boulevard, St. Louis, Mo. 63108.**

POSTDOCTORAL POSITION RICE UNIVERSITY

The Department of Biochemistry announces the availability of a postdoctoral position in the area of metalloprotein structure and function. Previous experience in one of the following areas would be an advantage: purification and/or characterization of membrane-bound enzymes, mitochondrial electron transport proteins, bio-inorganic spectroscopy. Interested individuals should send a complete résumé, together with the names of three individuals who are willing to provide references for the applicant. All information should be sent to: **G. Palmer, Biochemistry Department, Rice University, P.O. Box 1892, Houston, Texas 77251.** *Rice University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION—to study protein chemistry of steroid hormone receptors. Experience in protein chemistry, HPLC, protein sequencing, immunochemistry, tissue culture and molecular biology (desired). Send curriculum vitae and names of three references to: **Dr. Francis S. Markland, Department of Biochemistry, University of Southern California School of Medicine, Cancer Research Laboratory Number 106, 1303 North Mission Road, Los Angeles, Calif. 90033.**

POSTDOCTORAL POSITION available summer 1985 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 or plant cell culture is desirable. Send curriculum vitae and three letters of references to: **Anthony R. Cashmore, The Rockefeller University, Laboratory of Cell Biology, 1230 York Avenue, New York, N.Y. 10021.**

POSTDOCTORAL POSITION IN PLANT CELLULAR AND MOLECULAR BIOLOGY

Available 1 March for the study of the molecular basis of organelle transmission in the development of heterokaryons and heteroplasmons formed by protoplast fusion. Applicants should have a strong background in molecular biology or related fields. Position is initially for 2 years. Send curriculum vitae and three letters of recommendation to: **Dr. David W. Galbraith, School of Biological Sciences, University of Nebraska-Lincoln, Lincoln, Nebraska 68588-0118.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately. NIH-sponsored research project on the "Cloning and Regulation of *Drosophila hydei* tyrosine aminotransferase." An integrated approach employing the techniques of recombinant DNA technology, genetics, and indirect immunofluorescence will be utilized. Applicants should have some experience in cDNA and genomic cloning. Ph.D. required. Send curriculum vitae and three letters of references to: **Dr. Tom Brady, Chairman, Biology Department, Hamilton College, Clinton, N.Y. 13323.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITION

Position available immediately to investigate the molecular mechanisms of the transfer of the *agrobacterium* T1-plasmid to plant cells. Experience in molecular biology required. Initial annual salary of \$16,500. Send curriculum vitae and three references to: **Dr. Stanton Gelvin, Department of Biological Sciences, Purdue University, West Lafayette, Ind. 47907.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION

Applicant desired to conduct research in ocean acoustic tomography in the ocean engineering department at the Woods Hole Oceanographic Institution. Background in geophysical or mathematical inversion theory desired but not necessary. The institution conducts basic research in all fields of oceanography and has a joint Ph.D. program with MIT. Interested candidates should send résumés and names of at least three professional references to: **Personnel Manager, Box 54P, Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543.**

An Equal Opportunity Employer M/F/H

POSTDOCTORAL POSITION IN NEUROBIOLOGY available 1 June 1985 for an electrophysiologist interested in the mechanism of action of benzodiazepines and beta-carbolines as modulators of GABA action in brain and spinal cord cell cultures. Experience with intracellular microelectrode recording, patch-clamp and computer analysis is desirable but not required. Send curriculum vitae to: **Dr. David H. Farb, Box 5, Department of Anatomy and Cell Biology, The State University of New York, Downstate Medical Center, Brooklyn, N.Y. 11203; telephone: 718-270-1308.**

APPLICATIONS INVITED FOR DIRECTOR, GENERAL CLINICAL RESEARCH CENTERS PROGRAM BRANCH

The National Institutes of Health, Division of Research Resources invites nominations and applications for the position of Director, General Clinical Research Centers Program Branch. This is a Civil Service position in the Senior Executive Service with a salary range of \$61,296 to \$68,700 per annum. (Physicians may be eligible for a comparability allowance up to \$10,000 per year.) Applications will be accepted from all qualified federal government employees, members of the PHS Commissioned Corps, individuals with SES reinstatement eligibility and qualified outside candidates who possess an M.D. degree. A one year probationary period must be served if the individual selected is not currently in the SES.

The Director, General Clinical Research Centers Program Branch, plans, develops, manages and evaluates a multi-million dollar grants and contracts program which supports high quality clinical research environments throughout the nation.

Further information about the position and qualification requirements may be obtained by contacting Ms. Pathenia A. Wiggins at (301) 496-1524. Applications (SF-171, Personal Qualifications Statement) accompanied by a current CV and bibliography should be submitted to Ms. Wiggins at the National Institutes of Health, DRR Personnel, Building 31, Room 5B06, 9000 Rockville Pike, Bethesda, Maryland 20205.

Applications must be postmarked not later than March 4, 1985. (The SF-171 form is available at all Federal Personnel Offices and Job Information Centers.) Applications from women and minority group candidates are solicited.

AN EQUAL OPPORTUNITY EMPLOYER

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

The Cardiac Diseases Branch, Division of Heart and Vascular Diseases, National Heart, Lung, and Blood Institute, is inviting applications for a staff (physician scientist) position in the extramural program to participate with clinician and nonclinician scientists in the implementation of national objectives in cardiologic research.

The Cardiac Diseases Branch is responsible for planning and administration of cardiac disease-oriented research in both clinical and fundamental areas. Major targeted programs in ischemic heart disease are the Thrombolysis in Myocardial Infarction Study (TIMI), a multicenter clinical trial of thrombolytic therapy in acute myocardial infarction, the Multicenter Investigation of the Limitation of Infarct Size (MILIS), the Coronary Artery Surgery Study (CASS), the NHLBI Percutaneous Transluminal Coronary Angioplasty Registry, the Specialized Centers of Research in Ischemic Heart Disease (multidisciplinary investigations of fundamental principles and clinical applications in ischemic heart disease), and fundamental studies of sudden cardiac death and lethal arrhythmias.

Applicants must have the M.D. degree or equivalent and experience in research. A background in cardiovascular research is desirable.

Appointment will be made in the federal civil service or the U.S. Public Health Service Commissioned Corps. Salary and benefits will be commensurate with qualifications and method of appointment. A qualifying candidate in the civil service would receive a minimum of \$44,242 and may be eligible for a comparability allowance up to \$10,000 per year.

Those interested in being considered for this position should submit their Personal Qualifications Statement (SF-171) which is available in Federal Personnel Offices and Federal Job Information Centers, along with a Curriculum Vitae and Bibliography by March 1, 1985 to Ms. Donna Brooks, NHLBI Personnel Office, National Institutes of Health, Public Health Service, 9000 Rockville Pike, Building 31, Room 5A34, Bethesda, MD 20205, or call (301) 496-6477.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

DEAN COLLEGE OF ENGINEERING UNIVERSITY OF CINCINNATI (Search Reopened)

The University of Cincinnati invites nominations and applications for the position of Dean of the College of Engineering. Located in historic Clifton, a residential district of one of the nation's most livable cities, the University is one of two comprehensive state universities in Ohio. The University's endowment of \$150,000,000 ranks sixth in the nation among public institutions. External support for research now totals more than \$31 million per year and the University ranks among the top 50 recipients of total federal support. Student enrollment exceeds 35,000 with 2,700 full- and part-time faculty in 15 colleges. New state supported programs have been initiated to further the institution's commitment to excellence.

The Dean of the College of Engineering reports directly to the Senior Vice President and Provost, is the College's chief executive officer, and has responsibility for the leadership and administration of all instructional and research programs of the College. The Dean represents the College to the alumni, the professional and business community, and is expected to be involved in community relations and to provide leadership in issues of concern to engineering education and research.

The College enrolls 3,000 graduate and undergraduate students and offers BS, MS, and PhD programs through the following departments: Aerospace Engineering and Engineering Mechanics, Chemical and Nuclear Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Materials Science and Metallurgical Engineering, and Mechanical and Industrial Engineering. The College has a rich tradition of excellence and innovation. In 1906 the first

cooperative plan for education was established in the College, and today this program is used by almost 1,000 institutions of higher education. The faculty of the College has active and varied research programs. This past year new awards and gifts have totalled \$6,700,000. The College recently received awards from the State of Ohio to support endowed chairs for two Eminent Scholars and one Program Excellence Award. The College is an active participant together with industry in the newly formed Institute of Advanced Manufacturing Sciences that has been established under the Thomas Alva Edison Program through a \$12.1 million grant from the State of Ohio.

Candidates are expected to have demonstrated success in engineering faculty/industrial positions, administrative experience, as well as to have significant academic or industrial achievements in an engineering field commensurate with appointment as a tenured professor. An understanding and appreciation of current engineering education/research issues, the ability to communicate effectively with faculty, staff, students, and industry, and a firm commitment to affirmative action is necessary. Salary is commensurate with background and experience. Submit letter of application, resume, and references by March 15, 1985 to:

Dr. George Rieveschl, Chairman
Engineering Dean's Search Committee
c/o President's Office
Mail Location #638
University of Cincinnati
Cincinnati, Ohio 45221-0638



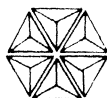
An Affirmative Action/Equal Opportunity Employer

ASSISTANT SCIENTISTS

The Bristol-Myers Pharmaceutical Research and Development Division has excellent opportunities for two Assistant Scientists to join its Virology Department. Selected candidates will participate in a research program on antiviral drugs in one of the following areas:

MECHANISM OF ACTION

Requires a BS Degree in Biochemistry or Biological Sciences, strong chemistry background plus 1-3 years experience in biochemical techniques and enzyme purification. Experience with gel-electrophoresis highly desirable.



BRISTOL-MYERS COMPANY RESEARCH AND DEVELOPMENT DIVISION

P.O. Box 4755, Syracuse, New York 13221

An equal opportunity employer M/F

Be part of a multidisciplinary research team on antiviral drugs

IN VIVO/IN VITRO EVALUATION

Requires a BS Degree in Biological Sciences or related area and strong biology background. Experience with tissue culture and IN VIVO techniques of animal virology highly desirable.

We offer good starting salaries, comprehensive benefits and a working environment conducive to your professional growth. For prompt, confidential consideration, forward your resume with salary history and requirement, to: EMPLOYMENT RECRUITER

GROUP LEADER LIFE SCIENCES DIVISION

The Los Alamos National Laboratory is seeking a line manager with a balanced combination of scientific, management and interpersonal skills.

Responsibilities:

- Technical program development and management.
- Interaction, and communication with technical personnel and senior Laboratory management.
- Environmental Sciences, a large multidisciplinary group, performs laboratory field research focusing on environmental problems associated with energy technologies and defense research. A current major program objective involves identification of solutions to potential environmental problems associated with effluents and wastes with emphasis on physical, chemical and biological mechanisms that control contaminant mobilization and transport in the environment.

Experience:

- A distinguished scientific record in the field of environmental science.
- Demonstrated successful experience in performing and managing significant research projects both in the laboratory and field.
- Ability to lead scientific personnel from diverse disciplines.
- Success in obtaining significant programmatic funding support from relevant funding agencies such as NIH, DOE, DoD, EPA and the private sector.
- Demonstrated effective written, oral and interpersonal communications skills.
- Ph.D. in the physical or biological sciences or an equivalent combination of education and relevant experience.

About Los Alamos:

The Laboratory, a national resource for multifaceted scientific research, is operated by the University of California for the U.S. Department of Energy. Our beautiful location in the mountains of northern New Mexico offers a relaxed community lifestyle with exceptional outdoor recreational activities.

To apply in confidence, please submit your resume with complete salary history and publication record to:

Sandra Harding, MS P203
Personnel Administration Division, DIV 85-AZ
Los Alamos National Laboratory
Los Alamos, New Mexico 87545
An Affirmative Action/Equal
Opportunity Employer
U.S. Citizenship Required

University
of California



POSITIONS OPEN

POSTDOCTORAL POSITIONS

Postdoctoral training in cardiovascular studies for medical scientists and clinical investigators is available for 2-year periods. The training programs emphasize laboratory research, coupled with course work where desired, in the physical sciences, instrumentation, computer science, systems analysis, physiology, and so forth. The research programs are in cardiovascular mass transport, blood-tissue exchange, muscle mechanics and metabolism, biomaterials, peripheral and coronary blood flows, imaging via ultrasound, NMR and radionuclide techniques including positron tomography, and bioinstrumentation. This is a National Research Service Award program open to U.S. citizens and landed immigrants, with stipends from \$14,040 to \$19,716. For information or application forms write: J. B. Bassingthwaite, M.D., Ph.D., Cardiovascular Bioengineering Training Program, WD-12, University of Washington, Seattle, Wash. 98195.

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

POSTDOCTORAL POSITION. Position available for 3 years to study the biochemistry and molecular biology of tyrosine protein kinases in murine and human lymphocytes. Position available immediately. Require Ph.D. and experience in biochemistry, immunology, or molecular biology. Send curriculum vitae and names of three references to: Dr. John E. Casnellie, Department of Pharmacology, University of Rochester Medical Center, 601 Elmwood Avenue, Rochester, N.Y. 14642.

POSTDOCTORAL POSITION for research on transgenic animals. Work includes microinjection of genes into eggs, embryo transfer and development of transgenic mouse lines expressing new gene constructions. Apply with curriculum vitae to: R. L. Brinster, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, Pennsylvania 19104.

POSTDOCTORAL POSITION available in spring or summer 1985 to work on the isolation, characterization, and function of proteins secreted into the uterine tract of domestic farm animals during early pregnancy. Candidate should have some experience with recombinant DNA technology and/or protein chemistry. Particular consideration will be given to individuals interested in working in reproductive biology on new approaches to improve reproductive efficiency. Send curriculum vitae and names of three references to: Dr. R. Michael Roberts, Department of Biochemistry and Molecular Biology, University of Florida, Gainesville, Fla. 32610.

POSTDOCTORAL POSITIONS

Lipids-Atherosclerosis-Nutrition Training Program funded by NHLBI. Postdoctoral traineeships are available for research and training in areas of (i) lipoprotein and cholesterol metabolism, (ii) atherosclerosis, (iii) neonatal lipid metabolism, and (iv) nutrition. Candidates with a Ph.D. degree in biomedical field and those with M.D. degree are eligible to apply. Applicants must be U.S. citizens or hold an immigrant visa. Send curriculum vitae with three letters of recommendation to: Dr. M. T. R. Subbiah, Program Director, University of Cincinnati Medical Center, 234 Goodman Street, M.L. Number 540, Cincinnati, Ohio 45267.

POSTDOCTORAL POSITION-RETINOID TOXICOLOGY. Current studies include effects of retinoids on carcinogen metabolism, bone toxicity, retinoid teratogenicity, and retinoid-vitamin K and retinoid-xenobiotic interactions. Design of other experiments related to above research would be encouraged. Salary \$19,000 first year, \$20,000 second year, plus benefits. Send curriculum vitae and names of three references to: D. D. Johnson, Chemotherapy Department, SOUTHERN RESEARCH INSTITUTE, P.O. Box 55305, Birmingham, Ala. 35255-5305. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION for studies on the mechanism of lung injury. Candidate to be involved in study of connective tissue metabolism during pulmonary emphysema and/or studies of lung protein metabolism and endothelial function during normal and regenerative growth and after acute injury using in vivo, in vitro, and cell culture approaches. Send curriculum vitae and names of three referees to: Dr. Clyde A. Watkins, Department of Physiology, Medical College of Georgia, Augusta, Ga. 30912. An Equal Opportunity/Affirmative Action Employer.

Postdoctoral Research and Training in International Peace and Security Studies

MacArthur Foundation Fellows in International Security
1985-1986

Purpose

- To encourage new approaches to the study of peace and security
- To encourage the application of theories and methods from diverse disciplines to issues of international peace and security
- To support advanced training and research in international peace and security studies for scholars holding a doctorate in the physical and biological sciences or the social/behavioral sciences, including foreign area studies

Program

Fellowships include support for one year of advanced training and one year of research applying knowledge gained during the training year. Training and research may be conducted at an institution of the fellow's choice.

For scholars entering the field of international peace and security studies, the year of advanced training must be in a specific area of peace and security studies that will inform the research to be conducted during the second year. Examples of appropriate candidates include (a) a psychologist who wishes to relate the study of group conflict to international negotiations; (b) a sociologist of complex organizations who wishes to study military command and control processes; and (c) an African specialist who wishes to examine the relationship of South African mineral deposits to international tensions.

For scholars who have previously specialized in international peace and security studies, the year of advanced training must be in a specific area of the physical and biological sciences or the social/behavioral sciences, including foreign area studies, that will inform the research to be conducted during the second year. Examples of appropriate candidates include (a) an arms control specialist who wishes to study economics so as to investigate the political economy of weapons production; (b) a Sovietologist trained in defense policy who wishes to study Russian history; (c) and an expert on deterrence who wishes to explore social science approaches to the study of rational behavior.

Sponsorship

These fellowships are administered by the Social Science Research Council as part of its program in International Peace and Security Studies. Funds for the fellowships are provided by a grant to the Council from the John D. and Catherine T. MacArthur Foundation.

Eligibility

Scholars who, when the fellowship commences, will hold an earned Ph.D. or its equivalent in any recognized field of the physical and biological sciences or the social/behavioral sciences, including foreign area studies, are eligible to apply. The competition is open to scholars of any nationality or from any country. Preference will be given to those in the early stages of their research careers.

Selection Procedure

Awards are made on the basis of the evaluations and recommendations of an SSRC Fellowship Selection Committee for International Peace and Security Studies. This committee is interdisciplinary and international in composition. Preliminary screening may be conducted by review panels with expertise in an applicant's area of scholarly interest.

Awards

An award of \$30,000 per year is provided to cover living expenses, travel, and research costs. Additionally, funds are available for the payment of fees at institutions hosting a fellow's training or research. Fellowships may begin immediately upon announcement of the award but no later than 18 months following the announcement. There will be a Fall 1985 application deadline for awards commencing in 1986.

Predoctoral fellowships are also available, providing a stipend of \$15,000 a year for two years. For further information, write the Social Science Research Council at the address below.

Application deadlines

March 31, 1985
July 31, 1985

Announcements of awards

June 1, 1985
October 1, 1985

For further information and application materials write:

**Social Science Research Council
Fellowship Program in International Peace and Security Studies
605 Third Avenue
New York, New York 10158
(212) 661-0280**

POSITIONS OPEN

POSTDOCTORAL POSITION available for recent Ph.D. to study protein phosphorylation and the mechanism of action of insulin and growth factors. Experience in protein chemistry helpful but not required. Send résumé and three letters of reference to: **Dr. Linda Pike, Washington University School of Medicine, Department of Biochemistry, Box 8094, St. Louis, Mo. 63110.**

The Section of Molecular Neurobiology at Yale University School of Medicine has a **POSTDOCTORAL POSITION** available to study the gene(s) encoding the MSH (melanocyte stimulating hormone) receptor. MSH, like ACTH, is a major pituitary peptide. Candidates should have experience in recombinant DNA technology. Send curriculum vitae and references to: **Dr. Michael R. Lerner, Molecular Neurobiology, Yale University School of Medicine, 333 Cedar Street, New Haven, Conn. 06510. Yale University is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are encouraged to apply.**

POSTDOCTORAL POSITION IN EPITHELIAL TRANSPORT available to study basal and hormone-regulated water and electrolyte transport in renal tubules using electrophysiological and ultramicro-analytical techniques. Position supported by NIH training grant in an active kidney research program; starting date flexible. Send curriculum vitae and names of three references to: **Dr. Bruce Stanton or Dr. Peter A. Friedman, Department of Physiology, Dartmouth Medical School, Hanover, N.H. 03756.**

POSTDOCTORAL RESEARCH ASSOCIATE POSITION available immediately to study repair, localization, distribution, and expression of chemically induced DNA lesions in mammalian chromatin and structural genes. Candidates with background in chemical carcinogenesis and eukaryotic gene expression preferred. Salary range is \$17,000 to \$19,000. Please send curriculum vitae, description of research experience and future interests, and names of three referees to: **Dr. Ramesh C. Gupta, Department of Pharmacology, Baylor College of Medicine, Houston, Texas 77030.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

Two positions (one immediate, another tentative) for basic and applied studies on bacterial autotrophy, trace metal biochemistry, and genetics of anaerobic bacteria. Background(s) in microbial physiology and/or genetics, or biochemistry preferred. Salary: \$18,500 for first year. Forward curriculum vitae, publications, and three letters of reference to: **Dr. Harold L. Drake, Microbial Physiology Laboratories, Department of Biology, University of Mississippi, University, Miss. 38677. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCHERS GENENTECH, INC.

Our Molecular Biology Department has openings for postdoctoral researchers to perform basic research in the following areas: oncogenes and growth factors, eukaryotic gene expression, lymphokines, neurobiology. Successful candidates will have a Ph.D. in molecular biology, biochemistry, or another relevant degree with a record of scientific excellence throughout their graduate work.

We offer an excellent compensation and benefits package coupled with the opportunity to make a significant contribution to our organization. Please send résumé to: **Human Resources Department EM, Genentech, Inc., 460 Pt. San Bruno Boulevard, South San Francisco, Calif. 94080. An Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH POSITION available July 1985 to study ligand-receptor interactions during the phagocytosis of photoreceptor cell outer segments by pigment epithelial cells in culture. Projects in progress involve the production of monoclonal antibodies to putative receptor proteins and the development of assays for the isolation and identification of receptor proteins. Salary: \$18,000 to \$24,000. Send résumé and three letters of reference to: **Dr. M. Hall, Jules Stein Eye Institute, University of California, Los Angeles, Medical Center, Los Angeles, Calif. 90024. Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

Postdoctoral position available immediately to participate in studies on the ligand-regulated Ca^{2+} -conducting channel of sarcoplasmic reticulum involved in excitation-contraction coupling in skeletal and heart muscle. Research will involve channel purification and reconstitution, and/or determination of the mechanism of channel activation using rapid quench or planar lipid bilayer techniques. Send curriculum vitae and names of three references to: **Dr. Gerhard Meissner, Department of Biochemistry 231-H, University of North Carolina, Chapel Hill, N.C. 27514. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE-SHIP in mucosal immunology at Baylor College of Medicine (*Equal Opportunity Employer*) to study factors which control the intestinal immune response to enteropathogens. Opportunity to participate in interdisciplinary research covering basic and clinical investigations. Prefer strong background in cellular immunoregulation. Send curriculum vitae and three references to: **Dr. D. G. Evans, VA Medical Center (111D), 2002 Holcombe, Houston, Texas 77211.**

POSTDOCTORAL RESEARCH ASSOCIATES IN IMMUNOLOGY. Two- to 3-year positions are available in an established laboratory with a major interest in human immunology. Areas of investigations are lymphocyte differentiation antigens, interleukins and their receptors, V region gene expression and its relationship to human disease susceptibility, and hematopoietic cell development. Emphasis is placed on human pathophysiology and training in clinical investigation. Individuals with a recent M.D. or Ph.D. degree, strong commitment to an academic career, and training in biochemical disciplines are desired. Inquiries should be addressed to: **Dr. Shu Man Fu, Oklahoma Medical Research Foundation, 825 NE 13th Street, Oklahoma City, Okla. 73104. Equal Opportunity/Affirmative Action Employer.**

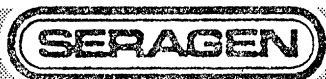
Biochemistry/ Immunology

Seragen Diagnostics, Inc., an Indianapolis based manufacturer of instruments and reagents is seeking Senior Scientists for their immunoassay products group. These positions encompass broad responsibilities including research and development, administration and product support.

The individuals we seek should have experience in clinical immunoassay development, immobilization of biological materials and antibody production. The successful candidates should be self-motivated and goal oriented with strong oral and written communication skills. A PhD is desired, but not necessary providing stated qualifications are satisfied.

Seragen Diagnostics offers competitive salary (commensurate with experience) and benefit programs. For prompt consideration, please send resume and salary history to: Personnel Manager.

Seragen Diagnostics, Inc.
P.O. Box 1210 Indianapolis, IN 46206



Equal Opportunity Employer



The University
of
British Columbia

FACULTY OF SCIENCE DEAN

Applications and nominations are invited for the position of Dean of the Faculty of Science, effective July 1, 1985. The Faculty comprises eleven departments that offer Bachelor, Master and Doctoral programs. The B.Sc. degree can also be earned in selected departments in the Faculties of Arts and of Medicine. There are approximately 320 full-time faculty members, and a considerable number of part-time faculty members.

The successful candidate must be recognized internationally in a field of research that enhances the activities of the Faculty, and will provide leadership for the Faculty. The Dean will have proven administrative ability and will be dedicated to excellence in teaching.

Applications and nominations should be directed to **Dr. Robert H.T. Smith, Vice President, Academic, The University of British Columbia, 6328 Memorial Road, Vancouver, British Columbia, V6T 2B3, no later than March 1, 1985, and must include a curriculum vitae, a list of publications and the names of three referees.**

In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of British Columbia offers equal opportunity for employment to qualified female and male applicants.

U.S. DEPARTMENT OF AGRICULTURE (USDA) AGRICULTURAL RESEARCH SERVICE (ARS)

National Program Leaders—Two Positions for (Forage, Pasture, and Range) and (Weed Science)

Highly qualified scientists are needed to assume the duties of national program leader and will serve as the focal point for national leadership and coordination of agricultural research programs relating to (forage, pasture, and rangelands) and (weed science), on the Agricultural Research Service's National Program Staff.

The successful candidate will focus on building broad multidisciplinary research programs to solve national agricultural problems conducted throughout the United States and in several foreign countries. Candidates must demonstrate skills for program planning, setting research priorities, allocating resources, and evaluating programs.

QUALIFICATIONS:

In addition to the basic requirement for all grades, candidates must have 3 years' professional experience in the programs related to (forage, pasture, and rangelands) and/or (weed science). Some education may be substituted for a portion of the experience requirements.

The positions are located in Beltsville, Maryland. Grade level is GS-15. Salary range is \$50,495 to \$65,642, based on qualifications and experience. U.S. citizenship is required.

Candidates must contact the person listed below to obtain an application package.

Applications must be received no later than February 28, 1985 and sent directly to:

**Ivy C. Hungerford
Personnel Division
U.S. Department of Agriculture
Room 107, Building 003, BARC-West
Beltsville, MD 20705**

USDA IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER.

MS/BS Molecular Cell Biologist Research Opportunity

Continued expansion of the Plant Genetics Department of Pfizer Central Research has created an opening for an Assistant Scientist with experience in cell or molecular biology. The successful candidate will join a multidisciplinary team working on genetic transformation of cereals, and will be involved in several aspects of vector development and cell culture technology. A strong commitment to innovative research and technical excellence is a prime requirement for this position. Although a background in plant sciences would be an advantage, all candidates interested in the practical applications of sophisticated technology to agricultural goals are encouraged to apply.

This unique position offers an excellent opportunity for professional recognition and career growth within a stimulating working environment. We offer an excellent salary, benefit and relocation package plus an attractive southeastern Connecticut shore location. Qualified applicants should submit their resume, including the names, addresses and phone numbers of three professional references to: Charles P. Norris, Personnel Associate, Pfizer Central Research, Eastern Point Road, Groton, CT 06340



An equal opportunity employer

MOLECULAR BIOLOGY

G. HAROLD & LEILA Y. MATHERS RESEARCH PROFESSORSHIP

The Mount Sinai Medical Center, New York
Ritter Department of Geriatrics
and Adult Development

Candidates are sought for an endowed research chair in the newly formed Department of Geriatrics and Adult Development at Mount Sinai. The chair will initiate and head a sizeable research program in the Molecular Biology of Aging with the intent of increasing understanding biological mechanisms of senescence. Considerable resources and support for fellows will be available. Targeted starting date is July 1985. Candidates must be prepared to lead an outstanding research program in this Department which is uniquely committed to interest in aging. Please send curriculum vitae to: Robert N. Butler, M.D., Brookdale Professor and Chairman, Ritter Department of Geriatrics and Adult Development, The Mount Sinai Medical Center, One Gustave L. Levy Place, New York, NY 10029. An Equal Opportunity Employer.



The Mount Sinai
Medical Center

CHEMISTS

CHEMICAL ENGINEERS/ BIOCHEMISTS

Career Opportunities in Chemical Information

THE ORGANIZATION

Chemical Abstracts Service (CAS), a division of the American Chemical Society, is the acknowledged world leader in chemical information services. Founded in 1907, CAS produces a variety of printed, computer-based, and on-line information services.

THE OPPORTUNITY

The continuing growth of CAS's information services has created a number of new editorial positions. These full-time, career opportunities allow scientists to make an important contribution to science by analyzing the world's chemical journal and patent literature. We need people at all degree and experience levels in such fields as:

**ANALYTICAL CHEMISTRY
BIOCHEMISTRY
CERAMIC ENGINEERING
CHEMICAL ENGINEERING
ENERGY TECHNOLOGY
ENVIRONMENTAL CHEMISTRY
GENERAL CHEMISTRY
METALLURGY
ORGANIC CHEMISTRY
PHARMACEUTICAL CHEMISTRY
PHOTOGRAPHIC CHEMISTRY
PHYSICAL CHEMISTRY
POLYMER CHEMISTRY
REPROGRAPHIC CHEMISTRY**

Good English writing skills are required, and foreign language skills (particularly Japanese) are highly desirable.

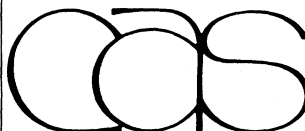
THE ENVIRONMENT

CAS is located in Columbus, Ohio, a growing and dynamic metropolitan area with excellent housing, cultural, recreational and transportation facilities. Our modern offices, situated in a campus-like setting, provide a professional, state-of-the-art working environment.

THE REWARDS

CAS provides a complete benefits package, which includes an excellent employer-paid retirement plan, relocation assistance, tuition reimbursement and a range of insurance programs, as well as salary scales commensurate with your background and experience.

To apply for one of these positions, please contact:



CHEMICAL ABSTRACTS SERVICE
Employment Department
P.O. Box 3012
Columbus, Ohio 43210
1-800-848-6538 x 3668

An Equal Opportunity Employer M F

ODENSE UNIVERSITY, DENMARK

PROFESSOR OF BIOCHEMISTRY

A position as professor of Biochemistry is available for occupation on 1.9.1985.

Applications are invited from persons with qualifications in the experimental aspects of one or both of the following areas:

Transmission of hormonal signals across biological membranes.

Relationship between the biophysical state of biomembranes (for example, fluidity) and their biological function.

It is expected that applicants will have made a major contribution to research within either or both of the specified areas, and have demonstrated a profound knowledge of the theory and practice of modern biophysical and biochemical techniques.

The successful applicant will be expected to participate in the teaching activities of the Institute of Biochemistry, which include basic courses for science and medical students, advanced courses for science students and the supervision of student research projects.

Foreign applicants are expected to be able to teach in the Danish language within a few years of appointment.

Further information is available from the Institute of Biochemistry, Odense University, Campusvej 55, 5230 Odense M, Telephone (09) 158600, extension 2441.

The employment field covers the Ministry of Education and the institutions under it. The wage frame is 37, and the salary amounts to Dansk Kroner 321.901,00 a year inclusive of bonuses as per the 1st October, 1984.

A professional selection committee will discuss the applications and their recommendation will be sent out to all applicants in its complete form.

Applications in 5 copies, marked "Position no. 0021" enclosing curriculum vitae and documentation for professional and pedagogical activities must be made to the Queen and sent together with all enclosures also in 5 copies to: Journalkontoret, Odense University, Campusvej 55, DK 5230 Odense M, Denmark, so that we will receive it on the 2nd May, 1985 at the latest.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE available immediately to study chronic alcohol-induced folate deficiency, emphasis on biochemical and physiological effects of ethanol on urinary folate. Background in renal physiology/pharmacology, alcohol metabolism, or folate biochemistry desirable. Please send curriculum vitae and three reference letters to: **Dr. Kenneth McMartin, Department of Pharmacology, Louisiana State University Medical Center, Shreveport, La. 71130. Equal Opportunity Employer.**

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION available after 1 April to study the enzymology, physical chemistry, and physiology of fat digestion and absorption in the suckling rat. Prior experience with lipids and/or lipolytic enzymes desirable. Send curriculum vitae and three letters of recommendation to: **Dr. Michael A. Wells, Biochemistry Department, Bio Science-West, University of Arizona, Tucson, Ariz. 85721. An Equal Opportunity-Affirmative Action-Title IX-Section 504 Employer.**

THREE POSTDOCTORAL/RESEARCH ASSOCIATE POSITIONS available in the laboratory of Professor Timasheff, Brandeis University, to carry out research in the areas of: (i) pathways of tubulin self-assembly and ligand (nucleotides, ionic species) control of the end products formed (microtubules, rings, sheets); (ii) mechanisms of interaction of anticancer drugs with tubulin and consequent inhibition of microtubule formation; linkages between drug binding and tubulin polymerization and effects of structural modifications and structural simplifications of the drug molecules on interactions with tubulin; (iii) solution mapping of the surface of the tubulin molecule by distance measurements between the various liganding sites (GTP, cations, drugs, and drug moieties) using energy transfer fluorescence and resonance techniques and changes in topography induced by the binding of various ligands; and (iv) mechanisms of protein- and protein assembly structural stabilization by solvent additives and of solvent modulation of biological activity. Send applications to: **Dr. Serge N. Timasheff, Graduate Department of Biochemistry, Brandeis University, Waltham, Mass. 02254. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH FELLOW to join an active laboratory involved in producing, purifying, and studying the action of various lymphokines. Seeking an active and dedicated individual with an interest in protein biochemistry and polyclonal and monoclonal antibody production. Exceptional environment featuring productive interactions between basic research and clinical setting. Salary: \$23,782-plus, depending on experience. Send curriculum vitae and the names and telephone numbers of three references to: **Dr. Berish Y. Rubin, Department of Lymphokine Biology, New York Blood Center, 310 East 67th Street, New York, N.Y. 10021. Equal Opportunity Employer.**

RESEARCH ASSOCIATE. Positions available (post-doctorate) immediately and for 1 July 1985 for Ph.D.'s with experience in cellular and molecular immunology. Active new program in neuroimmunology and neurovirology, studying genetic, cellular, and molecular mechanisms of murine and human demyelinating and degenerative diseases. Address inquiries to: **Dr. Robert L. Knobler, Department of Neurology, Thomas Jefferson Medical College, 1025 Walnut Street, Philadelphia, Pa. 19107; telephone 215-928-7195. An Equal Opportunity Employer.**

RESEARCH ASSOCIATE POSITION: Ph.D. required. Position at first or second postdoctoral level. To study immunology of human melanoma stem cells. Experience in immunology required, cell culture and/or biochemistry desirable. Open until 1 June 1985. Salary: \$14,000 to \$22,000 depending on experience. Send curriculum vitae and three references to: **Dr. Frank L. Meyskens, Jr., University of Arizona Cancer Center, Tucson, Arizona 85724. The University of Arizona is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH INVESTIGATOR. Neurobiologist with interest and skills complementing ongoing research on the role of neurotransmitters and neuropeptides in regulating growth cone motility and synaptogenesis. This Ph.D. level research investigator will perform experiments related to patch-clamp recording and computer enhancement of optical images of cell cultured, identified molluscan neurons. Salary range: \$19,500 to \$25,000 (40 hours per week). Send résumé and three references to: **Iowa Department of Job Service, 1810 Lower Muscatine Road, Iowa City, Iowa 52244. J.O. Number 1581261.**

PHARMACOLOGY POSTDOCTORAL FELLOWS

BURROUGHS WELLCOME CO., an innovative pharmaceutical company located in the Research Triangle Park, N.C., and having a top reputation for research, has immediate openings for two postdoctoral fellows in the following areas of the Pharmacology Department.

AUTONOMIC (Position #915)

To develop and expand narcotic research efforts with special emphasis on cardiovascular, autonomic and gastrointestinal pharmacology. Requirements are a Ph.D. in pharmacology with experience in experimental procedure *in vivo*. Experience in some aspect of cardiovascular and/or gastrointestinal pharmacology. Knowledge of and relevant laboratory experience with isolated tissues including receptor classification. Ability to communicate scientific work orally and in writing.

NEUROCHEMISTRY (Position #933)

To conduct independent studies concerning the effects of psychotropic drugs on neuropeptide function in whole brain and various brain areas and assess how such interaction may relate to the mechanism of action of existing drugs and the potential for new drug development. Requirements are a Ph.D. degree in neurochemistry, biochemistry, immunochimistry or biochemical pharmacology. Needs a broad knowledge of the principles and techniques involved in isolation and purification of neuropeptides. Knowledge of HPLC separation techniques, RIA techniques and binding assays as applied to neuropeptides is necessary. A knowledge of neuroanatomy and rat brain dissection techniques would be helpful.

BURROUGHS WELLCOME CO., offers a comprehensive company-paid benefit package, a competitive salary and an excellent environment in which to apply your professional capabilities. Qualified minority, female, veteran and handicapped individuals are encouraged to apply. Individuals should forward a curriculum vitae with transcripts, indicating position number to:

Employment Supervisor

BURROUGHS WELLCOME CO.

An Equal Opportunity/
Affirmative Action Employer



3030 Cornwallis Road
Research Triangle Park, N.C.
27709

Wellcome

Environmental Science
And Engineering

MANAGER HAZARDOUS AND INDUSTRIAL WASTE MANAGEMENT PROGRAM

The Environmental Health and Safety Division of the GEORGIA TECH RESEARCH INSTITUTE is seeking an applicant with a MS minimum PhD preferred, in Environmental Sciences with emphasis on Hazardous Wastes Management and experience and skills necessary to lead and effect the continued growth of the Hazardous and Industrial Waste Management Program. The candidate must have clearly identifiable success in technical, management, and entrepreneurial activities. Technical background must include broad-based experience in hazardous and industrial waste management, expert background and understanding of State and Federal regulations and must have extensive experience with USEPA/OSW and State(s) agencies. Candidates with a strong background in development and presentation of courses and/or research and development will be given special consideration.

GTRI offers competitive salaries and outstanding benefits that include 21 days of vacation.

GTRI, Patrick J. O'Hare, EST-1, Georgia Institute of Technology, GTRI/OOD, Atlanta, Georgia 30332.



An Equal Employment/
Education Opportunity Institute.

Microbial Geneticist

Pfizer Central Research has an opening in its Fermentation and Recovery R&D group for a Microbial Geneticist with an MS degree and experience in mutation and selection techniques, protoplast fusion and recombinant DNA methods. Demonstrated ability to work with a wide range of industrial organisms (fungi, yeast, bacteria) is essential. A working knowledge of modern analytical techniques (SDS-PAGE, GPC, HPLC, etc.) is also required.

The successful candidate will assist in optimization of fermentation processes and in the analysis of key biochemical compounds. Working in a multidisciplinary team, you will contribute to the commercialization of a wide variety of new biosynthetic products.

This position offers an excellent opportunity for professional recognition and career growth. We also offer competitive compensation, a comprehensive benefit package and the opportunity to live in an attractive Connecticut shore community. Please send resume and description of research accomplishments to: Charles P. Norris, Personnel Associate, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



An equal opportunity employer

MICROBIOLOGY RESEARCH

Wyeth Laboratories, a leading multinational pharmaceutical and nutritional products division of a Fortune 100 corporation, has a dynamic, rapidly expanding molecular biology research program and requires several immediate additions to its staff. All positions

listed below are based at Wyeth headquarters located on a sprawling business campus in Radnor, PA, an attractive, convenient suburban community on Philadelphia's prestigious Main Line.

Supervisor Recombinant DNA Unit

Requires a scientist with at least five years post-doctoral experience to lead an energetic group in molecular biology with emphasis on mammalian cells and animal viruses. Candidates must have demonstrated ability in recombinant DNA technology and in supervising the research of others. (Position #WD4118-S)

Molecular Biologist

Scientist will purify proteins derived by recombinant DNA methods and test properties in experimental animal models. Minimum three years experience in protein purification, immunology, and animal experimentation necessary. (Position #WD505-S)



TM

Molecular Biologist

Scientist to develop vaccines and other biologicals using recombinant DNA methods. At least three years experience in recombinant DNA techniques essential; work in animal virology (particularly DNA tumor viruses) desirable. (Position #WD506-S)

Monoclonal Antibody Specialist

Scientist with two or more years post-doctoral experience to develop monoclonal antibodies for vaccines and other biologicals. This person must interact heavily with other members of the Biologicals and Molecular Biology Sections as well as explore areas of mutual interest with immunopharmacology, cardiovascular, and other research departments. (Position #WD507-S)

Candidates should respond immediately by forwarding a resume or CV, indicating salary history, salary requirement, position applied for, and other pertinent information. All inquiries will be held in strict confidence. Reply to: **Manager of Recruitment, Wyeth Laboratories, Inc., P.O. Box 8299, Philadelphia, PA 19101.** Equal Opportunity Employer, M/F/H/V responses encouraged.

POSITIONS OPEN

The Department of Land, Air, and Water Resources, University of California, Davis, announces a position in the area of **REGIONAL SCALE METEOROLOGY**. Tenure track (11 months plus 1 month paid vacation) position will be divided (38 percent teaching and 62 percent research). The appointment will be at the assistant or associate professor level, depending on qualifications.

QUALIFICATIONS: A Ph.D. in atmospheric science or a closely related discipline, with a specialization in regional scale meteorology. Applicants should have teaching and research interests in the quantitative aspects of meteorological processes occurring on the meso- and regional-scales (10 km to 1000 km) of atmospheric motion. The appointee will develop a research program that may involve any of several subspecialties and application areas but the analysis and modeling of wind fields and other meteorological variables in complex terrain would be expected to be a prominent part of the program. Teaching will include a graduate course in meso-scale meteorology and both graduate and undergraduate courses in general areas of atmospheric science, and advising duties.

APPLICANTS: Applicants should submit curriculum vitae, transcripts, statement of research and teaching interests and background in each, copies of publications and manuscripts, and the names and addresses of at least three references to: **L. O. Myrup, Chair, Search Committee, Department of Land, Air, and Water Resources, 265 Hoagland Hall, University of California, Davis, Calif. 95616**, no later than 15 March 1985.

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

RESEARCH AGRONOMIST/PLANT PHYSIOLOGIST. Career Federal Service. USDA/ARS located at the University of Nebraska—East Campus, Lincoln, Nebraska. Candidate conducts research on undesirable plants of native and cultivated grasslands of the Central Great Plains with emphasis on their basic biology and vulnerability to control measures. Ph.D. desirable. Salary: GS-11/12 (\$26,381 to \$41,105) based on qualifications and experience. For additional information contact: **Dr. K. P. Vogel, USDA/ARS, 332 Keim Hall, EC, UN-L, Lincoln, Nebr. 68583; telephone: 402-472-1564**. Candidates must be U.S. citizens. *An Equal Opportunity Employer.*

RESEARCH POSITIONS IN MOLECULAR GENETICS

Applications are invited for several full-time research positions in the Molecular Genetics Program, Children's Hospital Research Foundation, and the Department of Pediatrics, University of Cincinnati. Successful candidates will join an established, expanding program of research in human molecular genetics. Recombinant DNA technology is extensively utilized to characterize normal and mutant human genes. This is ample opportunity to interact with other molecular biology groups at both the foundation and the University of Cincinnati Medical School.

- 1) RESEARCH ASSOCIATE/POSTDOCTORAL FELLOW.** Applicant must have an M.D. or Ph.D. with training in molecular genetics, biochemistry, or a related field. Initial appointment is for 2 years with the possibility of renewal.
- 2) RESEARCH ASSISTANT PROFESSOR.** Demonstrated expertise in molecular genetics is required. Previous experience in site directed mutagenesis or gene transfer to eukaryotic cells is an asset. Development of an independent research program supported by extramural funds is a possibility, although the initial appointment will be in a collaborative group. Term of initial appointment is flexible (typically 3 years) with the possibility of renewal. Salary is negotiable.

Send curriculum vitae, reprints, and names of three references to: **Dr. John Hutton, Children's Hospital Research Foundation, Cincinnati, Ohio 45229**.

STAFF SCIENTIST. Fabricate, characterize, and test high-efficiency III-V solar cells and improve process and test equipment. Must have Ph.D. in physics, materials science, or chemistry. Additionally, the candidate must have experience in MOCVD growth of III-V compounds and in high-resolution TEM and SEM evaluation of semiconductor epitaxial structures. The applicant must also be able to serve as a source of advice on photovoltaic problems. Forty hours per week. Salary between \$34,500 and \$36,000. Contact: **Colorado Job Service Center, 8585 West 14 Avenue, Lakewood, Colo. 80215**. Refer to job order C02593866. *An Equal Opportunity Employer.*

POSITIONS OPEN

PROFESSIONAL RESEARCH ASSISTANT. Immediate opening at the Jackson Laboratory located in Bar Harbor, Maine, adjacent to Acadia National Park. M.S. in a biological science or equivalent laboratory experience in molecular biology techniques. Procedures include plasmid and phage cloning, Southern and Northern blots, and DNA sequencing. Familiarity with tissue culture or computers also beneficial. Send résumé to: **Edward Birkenmeier, M.D., The Jackson Laboratory, Bar Harbor, Maine 04609**. *Equal Opportunity Employer.*

RESEARCH ASSISTANT PROFESSOR—Orthopedic Surgery Division. The University of Texas Health Science Center at Dallas (UTHSCD). Position available 1 March 1985 in expanding Orthopedic Surgery/Biomedical Engineering Program. Candidates with research experience in orthopedic biomechanics and bioinstrumentation are desired. Applicants should have an earned doctorate and the ability to work in a collaborative research program between the College of Engineering (UTA), Southwestern Medical School (UTHSCD), and the Veterans Administration Hospital, Dallas. Send curriculum vitae, three references, and letter outlining research experience and interest to: **Vert Mooney, M.D., Professor and Chairman, Orthopedic Surgery, UTHSCD 5323 Harry Hines Boulevard, Dallas, Texas 75235**. *An Equal Opportunity Employer.*

RESEARCH ASSOCIATE. Permanent position for a biochemist or immunochemist to participate in research on tumor-specific glycolipids. Laboratory experience in analytical and preparative biochemical techniques for glycolipid work essential. Excellent salary and benefits. Please send résumé to: **Dr. P. Desai, Immunochimistry Research, Evanston Hospital, 2650 Ridge Avenue, Evanston, Ill. 60201**. *Equal Opportunity Employer, M/F.*

R&D IMMUNODIAGNOSTICS

Kallestad Laboratories, Inc., located in suburban Minneapolis, has several opportunities in our research department for professionals with immunodiagnosics background. We are seeking highly motivated individuals at all degree levels with chemistry, biochemistry, or immunology backgrounds and Ph.D. level analytical or organic chemists. Some positions require strong management background and industrial experience. We offer competitive salaries, excellent benefits (including 401k plan), and pleasant working conditions. For consideration, send résumé c/o: **R. Gay**,

KALLESTAD LABORATORIES, INC.
1000 Lake Hazeltine Drive
Chaska, Minn. 55318
Equal Opportunity Employer

The Research Department of Central Institute for the Deaf (CID) seeks **SCIENTISTS** in the areas of auditory neurophysiology and of speech perception. In auditory neurophysiology, applicants may be at beginning, intermediate, or senior levels, but must be interested in applying current biological and electrophysiological techniques to basic research related to hearing and deafness and to the encoding of complex signals including speech in the peripheral and central auditory systems. In speech perception, a postdoctoral research scientist is sought to conduct research on the acoustic characteristics and the perception of vowels, diphthongs, and stops. Applicants should promptly submit résumés, a statement of research interests, and the names and addresses of four references to: **Dr. James D. Miller, Director of Research, Central Institute for the Deaf, 818 South Euclid, Saint Louis, Mo. 63110**. *CID has always been an Equal Opportunity Employer.*

The **FRED HUTCHINSON CANCER RESEARCH CENTER**, Seattle, Washington, has a position for a **SCIENTIST** with an interest in transplantation immunology, particularly as it relates to bone marrow transplantation. This academic appointment will be based on the experience and qualifications of the chosen candidate. Those interested should contact: **Rainer Storb, M.D., 1124 Columbia Street, Seattle, Wash. 98104**. *An Equal Opportunity/Affirmative Action Employer.*

SYNTHETIC ORGANIC CHEMIST to work in the area of vitamin D synthetic chemistry and the characterization of newly isolated vitamin D metabolites. Contact: **Dr. R. Kumar, 5-164 West Joseph, Mayo Clinic and Foundation, Rochester, Minn. 55905** or call collect 507-285-4300. *An Equal Opportunity/Affirmative Action Institution.*

POSITIONS OPEN

RESEARCH ASSOCIATE. Experience in cellular immunology, monoclonal antibodies, protein separation and characterization, and immunoassays. Research on autoimmune disease. M.S. or Ph.D. Send curriculum vitae and names of three references to: **T. Cavallo, M.D., 201 Keiller Building, The University of Texas Medical Branch, Galveston, Tex. 77550**. *Affirmative Action/Equal Opportunity Employer.*

As part of the rapidly expanding research and graduate training programs in the basic sciences at Emory University School of Medicine, the Department of Microbiology and Immunology is seeking to fill a **SENIOR FACULTY POSITION IN IMMUNOLOGY**. Appointment will probably be made at the associate professor level.

Candidates whose research activities involve molecular approaches to problems of immunity to infectious disease will be given preference, but individuals in any area of immunology are encouraged to apply. Please have a curriculum vitae forwarded by 15 March 1985 to:

Dr. Linda R. Gooding, Chairman
Immunology Search Committee
Department of Microbiology and Immunology
Emory University School of Medicine
Atlanta, Georgia 30322

Emory University is an Equal Opportunity/Affirmative Action Employer.

STAFF OFFICER

INTER-AMERICAN CONFERENCE ON FOOD PROTECTION

The National Academy of Sciences has an immediate opportunity to organize and manage a conference of Pan American officials on food quality control and food safety. The incumbent will assist a committee in planning all phases of the conference, preparation of background documents, and conference proceedings. Applicant should have a Ph.D. or equivalent in the food and nutrition sciences, or a related discipline, plus at least 3 years of experience in one of these fields. Experience in organizing international conferences and familiarity with Latin American countries is desirable and working knowledge of Spanish is preferable. Please submit résumé as soon as possible to: **Dr. Sushma Palmer, Commission on Life Sciences, National Academy of Sciences, 2101 Constitution Avenue, NW, Washington, D.C. 20418**. *An Equal Opportunity Employer.*

MORRIS COLLEGE, a private and predominately black, 4-year liberal arts college in Sumter, South Carolina is seeking a person to **TEACH COURSES IN PHYSICS** with a computer science background (general physics and electronics), and physical sciences. A Ph.D. in physics is required, Masters accepted. Salary and rank commensurate with qualifications and experience. Submit letter of application, letters of recommendation, and academic transcript to: **The Personnel Officer, Morris College, Sumter, S.C. 29150**. Deadline for accepting application is 15 March 1985. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS IN VERTEBRATE ZOOLOGY

Memphis State University

Applications are invited for two anticipated tenure-track assistant professor positions in vertebrate zoology beginning September 1985. Ph.D. required with postdoctoral experience preferred. Candidates must have a demonstrated ability and commitment to teaching and development of a strong, externally funded research program.

Vertebrate Physiology—Preference is for an experimental comparative physiologist. Teaching duties include undergraduate and graduate courses.

Vertebrate Zoology—The successful applicant will participate in freshman level courses, instruct courses in comparative vertebrate anatomy and herpetology, develop specialty courses as appropriate, and develop an experimental research program in any area of vertebrate biology. Candidate must have a strong background in quantitative aspects of biology.

Letter of application describing research interests, curriculum vitae, complete transcripts, and three letters of recommendation by 20 March 1985, to: **Dr. Kenneth B. Davis, Chairman of Vertebrate Search Committee, Department of Biology, Memphis State University, Memphis, Tenn. 38152**.

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

START-UP OPPORTUNITY

Immunodiagnosics

An exciting opportunity awaits those who value scientific challenge. Kallestad, a respected immunodiagnosics firm located in suburban Minneapolis, has immediate needs for experienced scientists with demonstrated success in their field to start a new venture group. The principle positions are:

- Organic Synthetic Chemist
- Immuno Chemist
- Analytical Chemist
- Biochemist

The selected candidates will have a PhD in their field of expertise and a minimum of three years immunodiagnostic experience in research or industry. These positions offer a compensation package equal to the challenge. Please forward your C.V. in strict confidence c/o R. Gay.

Kallestad

LABORATORIES INCORPORATED
2000 Lake Hazeltine Drive
Chaska, MN 55318

An Equal Opportunity/Affirmative Action Employer M/F

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Exciting pharmaceutical explorations and new expansions are taking place in Abbott Laboratories' Discovery area. We have made a long-term commitment to R&D, backed by the most sophisticated equipment and facilities, and are developing pharmaceuticals of the future.

PHARMACOLOGIST/ BIOCHEMIST

This position is involved with a research program to develop novel drugs for inflammatory and allergic diseases, and entails investigation of the biosynthesis of arachidonic acid metabolites and the utilization of *in vitro* and *in vivo* procedures to identify new agents. A Ph.D. in a relevant field plus 1-3 years post-doctoral experience is required. Knowledge of arachidonic acid biochemistry, HPLC and immunoassay techniques is desirable.

Abbott is a \$3.1 billion health care products manufacturer, attractively headquartered on the Lake Michigan shoreline just 30 miles north of Chicago. We provide excellent salaries, full benefits including profit sharing and stock retirement plan and outstanding opportunities for professional growth. For consideration, send a resume with salary history to: **John Gaddis/Corporate Placement**. Abbott is an Affirmative Action Employer.

 **ABBOTT**
ABBOTT PARK IL. 60064

"HEALTH CARE WORLDWIDE"

THE FIRST WORD IN ... SUCCESS

PROJECT DIRECTOR WOMEN IN SCIENCE & ENGINEERING

The American Association for the Advancement of Science is seeking an individual to direct the day-to-day activities of a dynamic project designed to address the issues of access and advancement of women in science and engineering, as well as the impact of science and technology on women. The incumbent will work under the direction of the head of the Office of Opportunities in Science. The Office, established in 1972, actively works to increase the numbers of minorities, women, and handicapped persons in the various fields of science. Position requires a master's degree in a scientific discipline and 3 years of experience in project research or an equivalent combination of education and experience. Successful incumbent will possess knowledge of status of women in science, engineering, and related fields, including concerns of women who are disabled or members of different racial/ethnic minority groups; experience in working with women's scientific or engineering professional groups as well as community based organizations working on behalf of women; experience in giving oral presentations, developing articles, writing proposals, analysing data on women in science; and awareness of barriers to and solutions to address problems of women in science. Familiarity with issues related to minorities and disabled persons in science and engineering highly desirable.

Please send letter of application, résumé, and salary requirements to: **Carolyn Pruitt, 1515 Massachusetts Avenue, NW, Washington, D.C. 20005.**

Equal Opportunity Employer

The PQ Corporation, a worldwide leader in silicate and silica chemistry, has the following positions available:

BIOCHEMIST/CHEMIST

Responsible for supporting the expanding research on silica-based adsorbents. Will contribute to the design of advanced experiments, analyze acquired data, draw conclusions, and propose future research directions. Broad experience in several of the following techniques is necessary: liquid chromatography; protein electrophoresis; protein purification; enzyme immobilization; adsorbent surface modification.

We require an M.S. in biochemistry/chemistry, or a B.S. with 3 years of experience. Strong communication skills, background in industrial research, experience in pilot plant operations, and the ability to implement computerized data acquisition systems are highly desirable.

MARKET DEVELOPMENT PROJECT MANAGER

Responsible for providing market development and project direction for new products/market entries of silica gel and colloidal silica based materials. Will interface with customer and PQ technical support groups to insure successful expansion of the business. A degree in Biochemistry is required along with 2 years technical experience in adsorption chemistry/application research and 3 years of product/market development experience, preferably in specialty products. Advanced degree desirable.

PQ offers a competitive salary and benefits package complemented by a pleasant working environment. Qualified applicants should send a resume to: **Kathy Piazza, The PQ Corporation, P.O. Box 840, Valley Forge, PA 19482.** Equal Opportunity Employer, M/F



The PQ Corporation

POSITIONS OPEN

TUMOR IMMUNOLOGIST

Program Resources, Inc., the operations and technical support contractor for the NCI-Frederick Cancer Research Facility, has an immediate opening for a tumor immunologist with experience in the preclinical testing of biological response modifiers for the treatment of cancer. The Preclinical Screening Laboratory encompasses a broad-based screening program using a system of sequential and progressing studies designed to determine the therapeutic potential of a BRM and understand the mechanism of activity, defining their effects on T cells, B cells, NK cells, and macrophage function; the BRM's are also evaluated for their ability to treat preexistent experimental and spontaneous metastases from syngeneic animals whose primary tumors have been surgically excised. Agents found effective in these hosts are evaluated for therapeutic efficacy in rodents bearing autochthonous tumors and emphasis is placed on synthetic immunomodulators and recombinant lymphokines.

One to 2 years of postdoctoral experience with in vitro assays of cell mediated immunity and in vivo tumor therapy models preferred.

This position offers a salary commensurate with education and experience, and company benefits including relocation assistance.

For consideration, please send curriculum vitae, three reference letters, and list of publications to:

NCI-Frederick Cancer Research Facility
P.O. Box B, Building 244
PR Number 5-0347
Frederick, Maryland 21701
Equal Opportunity Employer, M/F

SYMPOSIUM

BIOCHEMICAL ENDOCRINOLOGY SYMPOSIUM

The seventh annual University of California-Riverside Nichols Institute Symposium on Cellular and Molecular Endocrinology will be held Friday, 29 March and Saturday, 30 March 1985 on the University of California-Riverside campus.

The meeting will have four 3-hour sessions devoted to the topics of (i) cell growth, (ii) trans-membrane signaling, (iii) steroid receptors, and (iv) endocrinological aspects of immune disorders.

Fourteen internationally recognized scientists will present lectures. They include the following: Donald S. Coffey (Baltimore), Mark M. Davis (Stanford), Yoko Fujita-Yamaguchi (Duarte), Gordon N. Gill (San Diego), Column A. Gorman (Rochester), Tony Hunter (San Diego), James N. Ihle (Frederick), Gerald Litwack (Philadelphia), Angelo C. Notides (Rochester), Gordon Ringold (Stanford), Jerome I. Rotter (Torrance), Daniel S. Straus (Riverside), Axel Ullrich (San Francisco), and Owen N. Witte (Los Angeles).

For registration and further information please write: Dr. Anthony W. Norman, Program Director, Endocrinology Symposium, Department of Biochemistry, University of California, Riverside, Calif. 92521; telephone: 714-787-4777.

PROGRAMS

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: Ph.D.—O.D. Program Director, Admissions Office, Room 14, The New England College of Optometry, 424 Beacon Street, Boston, Mass. 02115.

CONFERENCE

ANNOUNCEMENT AND CALL FOR PAPERS: PLANT FLAVONOIDS IN BIOLOGY AND MEDICINE

22 through 26 July 1985
BUFFALO, NEW YORK

Organizers: V. Cody, E. Middleton, and J. Harborne. Thirty-six invited speakers will discuss flavonoid effects in enzyme and cell systems. Registrants receive a copy of the proceedings. Abstracts for poster papers due 19 April 1985. Contact: Dr. Cody, Medical Foundation of Buffalo, 73 High Street, Buffalo, N.Y. 14203.

FELLOWSHIPS

PRE- AND POSTDOCTORAL FELLOWSHIPS

Applications are invited for training in cancer biology at the University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas. The areas of training include molecular, cellular, developmental, biochemical and human genetics, tumor biology, and virology. Financial support is available through an NCI training grant. Candidates must be U.S. citizens or permanent residents. Candidates should send curriculum vitae and names of three references to:

Dr. David E. Anderson
University of Texas M. D. Anderson Hospital
and Tumor Institute
6723 Bertner, HMB 209
Houston, Texas 77030

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL RESEARCH TRAINING FELLOWSHIPS in developmental psychobiology available for qualified M.D.'s or Ph.D.'s. NIMH-sponsored program includes core curriculum and research opportunities in areas including developmental biochemistry and pharmacology, electrophysiology, cognitive and emotional development, learning disorders, neuromagnetism, behavior and physiology in nonhuman primates, behavioral immunology, and clinical research in infants and children. One-year program with a possible 1-year renewal beginning summer 1985. Apply by 1 March 1985. For information: Martin Reite, M.D., Department of Psychiatry, Box C268, University of Colorado School of Medicine, Denver, Colorado 80262. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH FELLOWSHIP IN PLANT BIOLOGY

Position now open to study the regulation of ethylene biosynthesis in cultured plant cells. Preference given to applicants with experience in plant biochemistry, physiology, and/or tissue culture. Please send curriculum vitae and the names of three references to: Dr. William Pengelly, Department of Chemistry, (ATTN:DLS) OREGON GRADUATE CENTER, 19600 NW Von Neumann Drive, Beaverton, Oregon 97006.

An Equal Opportunity Employer, M/F/H/V

POSTDOCTORAL FELLOWSHIP in endocrinology and metabolism, 1 July 1985 in Endocrine Research Unit, Mayo Clinic, Mayo Medical School. Candidates must have Ph.D., D.V.M., D.D.S., or M.D. degree and must be United States citizen or holder of immigrant visa. Investigators in unit are interested in the metabolism and mechanism of action of calcitropic hormones such as parathyroid hormone, calcitonin, and vitamin D. Contact: Dr. R. Kumar, 5-164 West Joseph, Mayo Clinic, Rochester, Minnesota 55905; telephone: 507-285-4300. An Equal Opportunity/Affirmative Action Institution.

GRADUATE FELLOWSHIPS IN MOLECULAR MICROBIOLOGY. The Department of Medical Microbiology at the University of Vermont invites applications from persons interested in a career in molecular biology. Areas of inquiry include: recombinant DNA applications to the study of development in higher fungi; protein synthesis; response of eukaryotic cells to toxins, hormones, and viruses studied using biochemical, immunological, and molecular genetic techniques; maintenance and control of the carcinogenic state; biochemical, immunological, and recombinant DNA techniques to study the molecular basis of mechanisms of bacterial adhesion to host tissue. Full tuition remission and tax-free stipend approximately \$7300 per year. Write: Dr. Thomas J. Moehring, Department of Medical Microbiology, The University of Vermont, Burlington, Vt. 05405.

TRAINEESHIPS

POSTDOCTORAL TRAINEESHIP (Ph.D. or M.D.) for 2 to 3 years in the Department of Ophthalmology, University of Illinois Eye and Ear Infirmary. Research areas include visual electrophysiology and psychophysics, fundus reflectometry, and biochemical studies of retinal function. Preceptors: Gerald Fishman, M.D., David Pepperberg, Ph.D., Kenneth Alexander, Ph.D., and Paul Kilbride, Ph.D. NIH supported stipend to begin July 1985. Send letter of application, including curriculum vitae and the names of three references, to: Gerald Fishman, M.D., Department of Ophthalmology, 1855 West Taylor Street, Chicago, Illinois 60612. An Affirmative Action/Equal Opportunity Employer.

TRAINEESHIPS

PREDOCTORAL AND POSTDOCTORAL TRAINING IN MOLECULAR VIROLOGY. Several predoctoral and postdoctoral traineeships are available for qualified applicants in a multidisciplinary program through NIH training grants. Preceptors include: Drs. G. Air, J. Bennett, R. Compans, M. Cooper, J. Engler, J. Griffin, J. Kearney, E. Hunter, E. Lamon, J. Lebowitz, P. Roy, J. Segrest, R. Whitley, and R. Wells. Research areas include: gene cloning, sequence analysis, site-directed mutagenesis and expression, viral pathogenesis and immunology, protein transport, and membrane biology. Send applications and inquiries to: Dr. E. Hunter, Department of Microbiology, University of Alabama at Birmingham, Birmingham, Ala. 35294. An Affirmative Action/Equal Opportunity Employer.

COURSES

RESEARCH METHODS IN SOMATIC CELL GENETICS

An NIH workshop course conducted by the Eleanor Roosevelt Institute for Cancer Research and the Given Institute of Pathobiology in Aspen, Colorado, 6 through 24 August 1985, in key procedures which utilize a combination of somatic cell and molecular genetics for the cloning and analysis of function of mammalian genes. Laboratory exercises will include isolation of somatic cell mutants, somatic cell hybridization for complementation and dominance analysis, preparation of a cDNA library, DNA mediated gene transfer and manipulation of mammalian genes in *Escherichia coli*. These exercises are designed to provide necessary introduction in genetic technology for professional research workers wishing to apply this technology to their ongoing research program. Those with interests in research in malignancy are particularly encouraged to apply. All expenses except travel borne by program. Faculty will include Doctors J. N. Davidson, M. L. Law, A. Siddiqui, M. Sinensky, and C. Waldren. Applicants should submit curriculum vitae and short paragraph describing research interests and the expected contributions of this course to their program to: Dr. Michael Sinensky, Program Director, Somatic Cell and Molecular Genetics Workshop, 4200 East 9th Avenue, B-129, Denver, Colo. 80262. U.S. citizens only.

AWARDS

HUNTINGTON'S DISEASE RESEARCH AWARDS. The Wills Foundation will review research proposals and postdoctoral fellowship applications for 1 to 3 years of funding with following years contingent on previous year's results. Research on biomolecular aspects and physiology of basal ganglia will receive priority through all areas of Huntington's are of interest. For information, contact: THE WILLS FOUNDATION, P.O. Box 66704, Houston, Texas 77266-6704.

ASSISTANTSHIPS

The University of Nevada, Reno, anticipates agency support for a **RESEARCH ASSISTANTSHIP** involving beaver ecology and leading to a Ph.D. in biology. The research will be part of an interdisciplinary applied research project on a northeast Nevada cattle ranch. Applicants must have earned an M.S. degree in biology or a related discipline, preferably with field research experience. Ph.D. program also requires 1 to 2 semesters as teaching assistant. Send requests for application materials to: Dr. Stephen Jenkins, Biology Department, University of Nevada, Reno, Nev. 89557. An Affirmative Action/Equal Opportunity Employer.

MARKETPLACE

BUSINESS OPPORTUNITY. Active partnership desired by biotechnology expert with outstanding academic career, executive industrial credentials, and seed investment capital. I am seeking a managerial or R&D collaboration in commercial development with a scientific party having proprietary biomedical projects with good market potential. Northern California location preferred. Inquiries will be treated with strictest confidence. Box 79, 1400 Shattuck Avenue, Number 7, Berkeley, Calif. 94709.

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The quality of any research microscope relies on the interrelationship of optical performance, computer intelligence and mechanical capability. For more than six decades, Olympus has dedicated itself to development of a unique fusion of these distinct disciplines.

Nowhere is this achievement better exemplified than in the all-new Vanox Research Microscope System. An innovative concept that builds into the System's models a broad range of skills and versatility traditionally requiring attachments, accessories and add-ons to limited-capability microscopes...all make the new Vanox the most significant contribution to research microscopes in over a decade.

Some of the built-in innovations include three photographic ports for cine, 35mm or large format cameras, auto-exposure with spot or integrated measurements, light balancing filters, choice of condensers and illuminators, including Koehler, and so much more that only a hands-on experience can attempt to show the breakthrough quality of the new Vanox models. Arrange a demonstration now by contacting Olympus Corporation, Precision Instrument Division, 4 Nevada Drive, Lake Success, NY 11042-1179. Or phone: East—(609) 482-1010; West—(415) 342-3384; Midwest—(913) 648-8323. In Canada: W. Carsen Co., Ltd., Ontario

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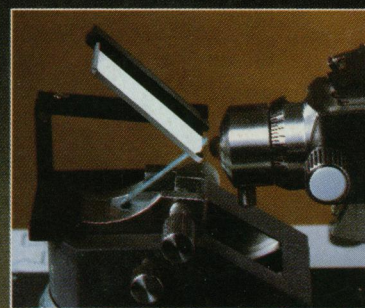
For information circle reader service number 20
For a demonstration circle reader service number 35

THE RIGHT STUFF

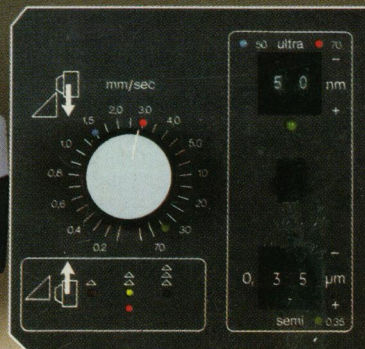
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Specimen transillumination



Mesacut 2 structure viewer



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The Ultracut E couples the ultimate in precision with the ultimate in ease of operation for superior productivity and reproducibility.

A unique multi-illumination system provides six different lighting options. Specimen Trans-Illumination can be combined with both Incident Light and Darkfield Illumination for improved clarity of the specimen block and to aid in knife edge inspection. Optionally available, the Mesacut 2 Structure Viewer enhances precision trimming of a pyramid or mesa by permitting examination of the block face without disturbing the sectioning setting.

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