

As is usual with symposium volumes, the papers are uneven in quality and importance. Nine of them, those by Anderson, Beddington, Berry, Connell, Grime, Hassell, Law, Steele, and Usher *et al.*, are conspicuous repeats of other recent publications by their authors or otherwise contribute little that is new, and many, especially that by Usher *et al.*, are guilty of parochiality in citation of the literature. However, the fact that nearly half of the papers are exceptionally stimulating recommends the volume very highly.

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A Program for Renewed Partnership. The Report of the Sloan Commission on Government and Higher Education. Ballinger (Harper and Row), New York, 1980. xvi, 310 pp. \$18.50.

Progress in Clinical Pharmacy II. G. Aulagner, J. C. Plasse, and E. vander Kleijn, Eds. Elsevier North-Holland, New York, 1980. xx, 298 pp., illus. \$47.75.

(Continued on page 90)

BOOKS RECEIVED

(Continued from page 42)

Progress in Drug Metabolism. Vol. 4. J. W. Bridges and L. F. Chasseaud, Eds. Wiley-Interscience, New York, 1980. xii, 336 pp., illus. \$72.

Project Whirlwind. The History of a Pioneer Computer. Kent C. Redmond and Thomas M. Smith. Digital Press, Bedford, Mass., 1980. xvi, 280 pp., illus. \$21.

Proliferation of Different Cell Types in the Brain. Hubert Korr. Springer-Verlag, New York, 1980. viii, 74 pp., illus. Paper, \$28.30. Advances in Anatomy, Embryology and Cell Biology, vol. 61.

Psychobattery. A Chronicle of Psychotherapeutic Abuse. Therese Spitzer with medical discussion by Ralph Spitzer. Humana Press, Clifton, N.J., 1980. xviii, 236 pp. \$11.95.

Psychological Models and Neural Mechanisms. An Examination of Reductionism in Psychology. Austen Clark. Clarendon (Oxford University Press), New York, 1980. x, 206 pp., illus. \$34.50.

Public Health and Community Medicine. Lloyd Edward Burton, Hugh Hollingsworth Smith, and Andrew Wilkinson Nichols. Williams and Wilkins, Baltimore, ed. 3, 1980. xii, 600 pp., illus. Paper, \$29.95.

The Purposive Brain. Ragnar Granit. MIT Press, Cambridge, Mass., 1980. xii, 244 pp. Paper, \$5.95. Reprint of the 1977 edition.

Quality Assurance in Health Care. A Critical Appraisal of Clinical Chemistry. Royden N. Rand, Russel J. Eilers, Noel S. Lawson, and Alan Broughton, Eds. American Association for Clinical Chemistry, Washington, D.C., 1980. x, 460 pp. \$24.50.

Quantitative Aspects of Chemical Pharmacology. Chemical Ideas in Drug Action with Numerical Examples. R. B. Barlow. University Park Press, Baltimore, 1980. vi, 250 pp., illus. \$19.95.

Questions of Intonation. Gilliam Brown, Karen L. Currie, and Joanne Kenworthy. University Park Press, Baltimore, 1980. 206 pp., illus. \$24.95.

Radio Physics of the Sun. Mukul R. Kundu and Tomas E. Gergely, Eds. Reidel, Boston, 1980 (distributor, Kluwer Boston, Hingham, Mass.). xx, 476 pp., illus. Cloth, \$60.50; paper, \$28.95. International Astronomical Union Symposium No. 86.

Ransom Kidnapping in America, 1874-1974. The Creation of a Capital Crime. Ernest Kahlar Alix. Southern Illinois University Press, Carbondale, and Feffer and Simons, London, 1980. xxxiv, 222 pp. Paper, \$5.95. Reprint of the 1978 edition.

Recent Progress in Hormone Research. Vol. 36. Proceedings of a conference, 1979. Roy O. Greep, Ed. Academic Press, New York, 1980. xviii, 630 pp., illus. \$54.

Recent Results in Stochastic Programming. P. Kall and A. Prékopa, Eds. Springer-Verlag, New York, 1980. x, 238 pp. Paper, \$19. Lecture Notes in Economics and Mathematical Systems, vol. 179.

Recurrences and Discrete Dynamic Systems. Igor Gumowski and Christian Mira. Springer-Verlag, New York, 1980. vi, 272 pp., illus. Paper, \$16.80. Lecture Notes in Mathematics, vol. 809.

Recursion on the Countable Functionals. Dag Normann. Springer-Verlag, New York, 1980. viii, 192 pp. Paper, \$11.80. Lecture Notes in Mathematics, vol. 811.

Research Techniques in Nondestructive Testing. Vol. 4. R. S. Sharpe, Ed. Academic Press, New York, 1980. xii, 514 pp., illus. \$70.

Residential Energy Conservation. Office of Technology Assessment, Congress of the United States. Allanheld, Osmun, Montclair, N.J., 1980. viii, 338 pp., illus. \$15.

Residue Reviews. Residues of Pesticides and Other Contaminants in the Total Environment. Vol. 74. Francis A. Gunther and Jane Davies Gunther, Eds. Springer-Verlag, New York, 1980. xii, 138 pp., illus. \$26.80.

Seedlings of Dicotyledons. Structure, Development, Types. Descriptions of 150 Woody Malesian Taxa. E. F. de Vogel. Centre for Agricultural Publishing and Documentation, Wageningen, The Netherlands, 1980 (U.S. distributor, Unipub, New York). x, 466 pp., illus. + plates. \$125.

The Sense of Well-Being in America. Recent Patterns and Trends. Angus Campbell. McGraw-Hill, New York, 1980. xvi, 264 pp. \$14.95.

Sensory Assessment of Water Quality. B. C. J. Zoeteman. Pergamon, New York, 1980. xiv, 148 pp., illus. \$28. Pergamon Series on Environmental Science, vol. 2.

Serologic Analysis of Human Cancer Antigens. Papers from a meeting. Steven A. Rosenberg, Ed. Academic Press, New York, 1980. xviii, 712 pp., illus. \$45.

Severe Accidental Head Injury. An Assessment of Long-Term Prognosis. A. H. Roberts. Macmillan, London, 1979 (U.S. distributor, University Park Press, Baltimore). viii, 226 pp., illus. \$49.50.

Social Incentives. A Life-Span Developmental Approach. Joseph Veroff and Joanne B. Veroff. Academic Press, New York, 1980. xiv, 312 pp. \$23.

The Social Psychology of School Learning. James H. McMillan. Academic Press, New York, 1980. xiv, 264 pp. \$21.

Sociology and the Twilight of Man. Homocentrism and Discourse in Sociological Theory. Charles C. Lemert. Southern Illinois University Press, Carbondale, and Feffer and Simons, London, 1980. xvi, 260 pp. Paper, \$5.95. Reprint of the 1979 edition.

Somatostatin. Vol. 2. Mary T. McQuillan. Eden Press, St. Albans, Vt., 1980 (distributor, Pergamon, New York). vi, 234 pp. \$30.

Spectroscopic References to Polyatomic Molecules. V. N. Verma. IFI-Plenum, New York, 1980. 126 pp. \$75.

Spinocerebellar Degenerations. Itsuro Sobue, Ed. University of Tokyo Press, Tokyo, and University Park Press, Baltimore, 1980. xii, 382 pp., illus. \$64.50. Japan Medical Research Foundation Publication No. 10.

The State of the Universe. Wolfson College Lectures 1979. Geoffrey Bath, Ed. Clarendon (Oxford University Press), New York, 1980. viii, 200 pp., illus. \$24.95.

Statistical Decision Theory. Foundations, Concepts, and Methods. James O. Berger. Springer-Verlag, New York, 1980. xvi, 426 pp. \$24.

Statistical Methods for Comparative Studies. Techniques for Bias Reduction. Sharon Anderson and seven others. Wiley, New York, 1980. xiv, 290 pp., illus. \$24.95.

Stereological Methods. Vol. 1, Practical Methods for Biological Morphometry. Ewald R. Weibel. Academic Press, New York, 1980. xviii, 416 pp., illus. \$57.50.

Steroids and Their Mechanism of Action in Non-mammalian Vertebrates. G. Delrio and J. Brachet, Eds. Raven, New York, 1980. xii, 240 pp., illus. \$22.50.

Strategies of Immune Regulation. Eli Sercarz and Alastair J. Cunningham, Eds. Academic Press, New York, 1980. xx, 538 pp., illus. \$39.50.

Structure in Science and Art. Peter Medawar and Julian H. Shelley, Eds. Excerpta Medica, Amsterdam, 1980 (U.S. distributor, Elsevier North-Holland, New York). xx, 176 pp., illus. \$39.

Studies in the Foundations of Quantum Mechanics. Patrick Suppes, Ed. Philosophy of Science Association, East Lansing, Mich., 1980. x, 266 pp. \$6.

Sunlight to Electricity. Prospects for Solar Energy Conversion by Photovoltaics. Joseph A. Merrigan. MIT Press, Cambridge, Mass., 1980. xii, 164 pp., illus. Paper, \$5.95. Reprint of the 1975 edition.

Superplasticity. Mechanical and Structural Aspects, Environmental Effects, Fundamentals and Applications. K. A. Padmanabhan and G. J. Davies. Springer-Verlag, New York, 1980. xiv, 312 pp., illus. \$34.80. Materials Research and Engineering, vol. 2.

Surgery of Cervical Myelopathy; Infantile Hydrocephalus: Long-Term Results. W. Grote, M. Brock, H.-E. Clar, M. Klinger, and H.-E. Nau, Eds. Springer-Verlag, New York, 1980. xviii, 458 pp., illus. Paper, \$54.30. Advances in Neurosurgery 8.

Symbol as Sense. New Approaches to the Analysis of Meaning. Mary LeCron Foster and Stanley H. Brandes, Eds. Academic Press, New York, 1980. xvi, 416 pp., illus. \$35.

Symmetry. An Analytical Treatment. J. Lee Kavanau. Science Software Systems, Los Angeles, 1980. Various pages, illus. Paper, \$24.95.

Syntheses of Natural Products. Springer-Verlag, New York, 1980. iv, 118 pp., illus. \$40.20. Topics in Current Chemistry, 91.

Turbulence in the Free Atmosphere. N. J. Vinnichenko, N. Z. Pinus, S. M. Shmeter, and G. N. Shur. Translated from the second Russian edition (1973) by Frank L. Sinclair. Consultants Bureau (Plenum), New York, 1980. xiv, 310 pp., illus. \$49.50.

Wholeness and the Implicit Order. David Bohm. Routledge and Kegan Paul, Boston, 1980. xvi, 224 pp. \$25.

The World of the Tent-Makers. A Natural History of the Eastern Tent Caterpillar. Vincent G. Dethier. University of Massachusetts Press, Amherst, 1980. viii, 148 pp., illus. Cloth, \$12.50; paper, \$5.95.

A World on Paper. Studies on the Second Scientific Revolution. Enrico Bellone. Translated from the Italian edition (Milan, 1976) by Mirella and Riccardo Giacconi. MIT Press, Cambridge, Mass., 1980. xvi, 220 pp., illus. \$14.95.

An X-Ray Atlas of the Royal Mummies. James E. Harris and Edward F. Wente, Eds. University of Chicago Press, Chicago, 1980. xxviii, 404 pp. + microfiche. \$60.

X-Ray Microanalysis in Biology. M. A. Hayat, Ed. University Park Press, Baltimore, 1980. viii, 488 pp., illus. \$14.95.

You Can Fight for Your Life. Emotional Factors in the Causation of Cancer. Lawrence LeShan. Evans, New York, 1980. xxii, 192 pp. Paper, \$4.95.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising closing for a particular Friday issue is Wednesday, 3 1/2 weeks before. Advertising is accepted only in writing; no abbreviations. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, or handicap.

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POSITIONS WANTED

Anatomist/Neuroanatomist/Neurobiologist. Ph.D., associate professor. Good bibliography and 15 years of teaching gross anatomy, neuroanatomy, and histology, and preceptorship Ph.D. candidates. Currently working on ultrastructure of cell-to-cell communication in developing neural and lymphoid systems. Seeks position in teaching and research. Box 63, SCIENCE. X

Aquatic Ecologist. M.S. with research experience in freshwater and marine environments; 3 1/2 years of analytical laboratory experience, emphasizing atomic absorption. Will relocate. Box 75, SCIENCE. X

Biochemist/Endocrinologist. Ph.D. 1970. Supervised clinical laboratory performing RIA of hormones, steroid receptor assays. Research on hormone action in target tissues. Box 76, SCIENCE.

4/3, 10, 17, 24

Biologist. Ph.D.; 20 years of experience. Seeks position teaching beekeeping, entomology, and other invertebrate zoology courses. Box 68, SCIENCE.

4/3, 10, 17, 24; 5/1, 8

Cell Biologist/Molecular Geneticist. Ph.D. 1969. Eight years of experience in human cell cultures and drugs scanning both in vitro and in vivo. Expert in handling and using nude mice. Sound knowledge in statistics and experimental design. Also familiar with microbial genetics. Publications. Seeking research position. Box 77, SCIENCE. X

Lipoprotein Biochemist. Ph.D. Extensive experience in apolipoprotein purification, characterization, structure, function, and relation to metabolic disorders. Immunological methods. Radiolabeling techniques. Background in clinical chemistry and medical biochemistry. Seeks industrial/academic position. Box 78, SCIENCE. X

Sociologist. Ph.D. 1978. B.A. biology 1972. Seeks research or teaching position in health, medicine, nutrition, or obesity. Quantitative and evaluation skill. Box 79, SCIENCE. X

POSITIONS OPEN

AQUATIC BIOLOGIST. Faculty position in aquatic biology, fall 1981. Ph.D. required. To teach ichthyology and general courses. The individual chosen must express a long-term commitment to research and direction of graduate students. Send all application materials, including three letters of recommendation, to: **Dr. James Wick, Department of Biological Science, Box 5640, Northern Arizona University, Flagstaff, Ariz. 86011.** Closing date: 20 April 1981. *Equal Opportunity/Affirmative Action Employer.*

AQUATIC BIOLOGY. Applications are invited for the position of **Chief of the Bureau of Aquatic Plant Research and Control** in the Florida Department of Natural Resources. This administrative position supervises in-house and contract research programs, field operations and permitting of aquatic plant control and importation activities, administration of contracts for aquatic plant control work and extension programs. Administrative and leadership skills are essential for this 31-person bureau. Minimum educational experience required is a master's degree in botany, plant physiology, or plant biochemistry and 3 years of professional experience or a Ph.D. in those fields and 1 year of professional experience. Preference will be given to those with experience in aquatic systems.

Salary range is \$23,719 to \$32,614 per year, depending upon background and experience. Send curriculum vitae and letters of reference to: **Personnel Director, Department of Natural Resources, 3900 Commonwealth Boulevard, Tallahassee, Fla. 32303.** *An Affirmative Action/Equal Opportunity Employer.*

AQUATIC CHEMIST interested in teaching and research in the chemistry of natural waters and biogeochemical cycles. Ph.D. required. Salary and rank open. Applicants with a strong research record preferred. Send résumé and the names and addresses of three references to:

**Thomas L. Crisman, Committee Chairperson
Department of Environmental Engineering Sciences
University of Florida
Gainesville, Florida 32611**

Application deadline is 30 April 1981. *The University of Florida is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR. Molecular biologist interested in mechanisms of cell transformation, preferably by chemical carcinogens, at the genomic level. Department of Microbiology and Comprehensive Cancer Center, University of Southern California (USC). *An Equal Opportunity Employer.* Send curriculum vitae, bibliography, four references, and a statement of present and future research interests to: **Dr. Charles Heidelberger, USC Cancer Center, 1721 Griffin Avenue, Los Angeles, Calif. 90031.**

ASSISTANT PROFESSOR position (tenure-track) is available in the Department of Biochemistry. Candidate should have a strong background in bioorganic mechanisms and analytical techniques. The position involves both teaching and independent research. Preference will be given to those with interest in cell membrane components. Candidates should contact: **Dr. M. Waite, Department of Biochemistry, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, North Carolina 27103.** Telephone: 919-748-4373. *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF BIOCHEMISTRY

The Biochemistry Department of the George Washington University School of Medicine and Health Sciences, Washington, D.C., is seeking a Ph.D. graduate for appointment at the assistant professor level. This is a fully funded research-track position tenable for up to 5 years during which time the successful applicant will be given opportunity to apply for independent funding. Participation in the graduate teaching program of the department is expected, and preference will be given to applicants with background and training in the areas of cell culture or lipid and lipoprotein metabolism. The salary will be commensurate with experience. Applications with names and telephone numbers of three referees should be sent to:

**Director of Postgraduate Appointments
Department of Biochemistry
George Washington University
School of Medicine and Health Sciences
2300 Eye Street, NW
Washington, D.C. 20037**
Equal Opportunity Employer

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSORS OF ANATOMY

The Department of Anatomy, University of Cincinnati, College of Medicine, invites applications for three positions at the assistant/associate professor level. Candidates should be able to complement current research activities in metabolic or developmental biology. The candidate should have 2 to 3 years of postdoctoral experience and be able to conduct an independent research program. Teaching experience in either gross or microanatomy is required. Applicants should send a current copy of their curriculum vitae, a brief statement of their research interests, and three references by 1 May 1981 to:

**Dr. Robert R. Cardell
Professor and Chairman
Department of Anatomy
University of Cincinnati
231 Bethesda Avenue
Cincinnati, Ohio 45267**

An Equal Opportunity Employer

ASSISTANT OR ASSOCIATE PROFESSOR OF ANATOMY. Ph.D. to teach neuroanatomy course to first year medical students. Thirty lectures plus laboratories during 10 weeks. Also approximately 35 gross anatomy lectures plus gross laboratory participation. Three-member Ph.D. department. Preference given to those with current successful medical school teaching excellence. Research encouraged. Salary negotiable. Begin 1 July 1981. Large modern campus hospital. Cultural suburban living. Send curriculum vitae with names, addresses, and telephone numbers of four references to: **Dr. E. H. Whitten, Associate Dean, The University of Health Sciences, College of Osteopathic Medicine, 2105 Independence Boulevard, Kansas City, Missouri 64124.** Telephone: 816-283-2402. *Applications encouraged from all qualified persons.*

ASSISTANT PROFESSOR, ANALYTICAL CHEMISTRY. University of South Florida, beginning September 1981. Applicants must hold Ph.D. with specialization in analytical chemistry. Postdoctoral experience and experience with microprocessor control of instrumentation and data analysis is desirable. In addition to teaching, active research, possibly in cooperation with other faculty members, is essential. Send résumé, brief description of research and teaching interests, and names and addresses of three persons who may be contacted for letters of reference to: **Dr. Jefferson C. Davis, Jr., Chairman, Department of Chemistry, University of South Florida, Tampa, Fla. 33620.** Letter of application should be received by 17 April. *The University of South Florida is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR, CLINICAL CHEMISTRY. University of South Florida, beginning September 1981. Applicants must hold Ph.D. in clinical, analytical, biochemistry, or medicinal chemistry and have at least 1 year of postdoctoral training, research, or teaching experience with practical experience in clinical chemistry laboratory. Teaching duties will include courses in clinical chemistry, radiochemistry, and biochemistry laboratory. Research activity pertinent to clinical chemistry will be required, with instrumentation interests desirable. Send résumé, brief description of research and teaching interests, and names and addresses of three persons who may be contacted for letters of reference to: **Dr. Jefferson C. Davis, Jr., Chairman, Department of Chemistry, University of South Florida, Tampa, Fla. 33620.** Letter of application should be received by 17 April. *The University is an Affirmative Action/Equal Opportunity Employer.*

Position open for a full-time, tenure-track **ASSISTANT PROFESSOR IN HEALTH SCIENCE** beginning 1 September 1981. An earned doctorate in public health, health science, health care administration, or other related discipline is preferred. Applicant should be prepared to teach courses in community health problems specifically and in health science generally. Send curriculum vitae and three letters of reference to: **Ira Schoenwald, Ph.D., Coordinator, Health Science Program, California State University-Dominguez Hills, Carson, Calif. 90747,** before 30 April 1981.

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR OF BIOCHEMISTRY. Applications are invited for a tenure-track position as assistant or associate professor of biochemistry. Our first priority is to have a faculty with demonstrated excellence in research; thus, an outstanding candidate in any area of biochemistry will be considered. Applicants must have a Ph.D. degree and postdoctoral experience in biochemistry or in a closely related field. A successful applicant will be expected to develop or to have an active, externally funded research program. He/she would also be expected to participate in the instructional programs of the department. Thus, a good command of spoken and written English is necessary. Applications should include curriculum vitae, copies of one or two of the applicant's most recent and significant publications, short statement of research interest, and the name of three references. Application deadline is 30 April 1981 for a starting date of 1 July 1981. Please send curriculum vitae to: **Dr. Thomas E. Smith, Chairman, Department of Biochemistry, Howard University, College of Medicine, 520 W Street, NW, Washington, D.C. 20059.** *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR—BIOLOGY

The Biology Programs of the University of Texas at Dallas invite applications for two tenure-track positions at the assistant professor level beginning 1 September 1981. Applicants should be actively engaged in research in **eukaryotic molecular biology**, have at least 2 years of postdoctoral experience, and show evidence of independent, productive work sufficient to obtain federal grant support. The university has an upper level undergraduate biology program and a graduate biology (M.S., Ph.D.) program with research emphasis on molecular and cellular biology. The successful candidates will be expected to participate in teaching cell biology and/or biochemistry, supervise graduate students, develop a vigorous and independent research program, and interact with the current faculty. Send curriculum vitae, a short description of research plans (indication of sex and ethnicity for statistical purposes is requested but not required), and names of three or more references to:

**Academic Search Number 233
The University of Texas at Dallas
P.O. Box 688
Richardson, Texas 75080**

Applications should be received by 20 May 1981.

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

ASSISTANT RESEARCH SCIENTIST. This position is available June 1981 for the study of the neurophysiology of motor disorders. A Ph.D. with 1 to 2 years of postdoctoral experience in motor systems neurophysiology and previous experience with chronic recordings of single unit activity in the central nervous system of awake behaving primates are required. Send curriculum vitae and three letters of recommendation to: **Dr. George W. Dauth, Department of Neurology, Neuroscience Laboratory Building, The University of Michigan, 1103 East Huron Street, Ann Arbor, Michigan 48109.** *Equal Opportunity/Affirmative Action Employer.*

BIOCHEMIST, RESEARCH FACULTY position (research associate appointment) available after 1 July 1981 for a Ph.D. biochemist with at least 2 to 3 years of postdoctoral experience. This person will play a major role in an ongoing, broad research program in the area of vitamin A/retinoid metabolism, particularly dealing with retinoid binding proteins. Salary competitive and flexible depending on qualifications. Please apply with letter, curriculum vitae, bibliography, and three letters of reference to: **DeWitt S. Goodman, Division of Metabolism and Nutrition, Department of Medicine, Columbia University College of Physicians & Surgeons, New York, N.Y. 10032.**

Columbia University is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST. A position as assistant professor/research associate will be available this summer in the Department of Biochemistry at the University of Massachusetts. Responsibilities include teaching a course in molecular biology and participation in research on ribosome structure and function in protein biosynthesis. Experience in nucleic acid chemistry and protein synthesis desirable. Initial appointment for 2 years. Send résumé and names of three references to: **Dr. Robert A. Zimmermann, Department of Biochemistry, University of Massachusetts, Amherst, Mass. 01003,** by 1 May 1981. *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

Opening for **ASSISTANT PROFESSOR OF NEUROLOGICAL SURGERY**. Should have an interest and experience, both clinical and laboratory, in some aspect of epilepsy. Should be experienced in surgery for epilepsy, preferably holding a fellowship in that area. Secondary interest should be in head trauma. Reply to: **Kemp Clark, M.D., Department of Surgery, University of Texas Health Science Center, 5323 Harry Hines Boulevard, Dallas, Texas 75235. Equal Opportunity Employer.**

Positions available: Department of Biochemistry, University of Ottawa, Faculties of Health Sciences and of Science and Engineering.

ASSISTANT OR ASSOCIATE PROFESSOR, NUTRITIONAL BIOCHEMISTRY. Tenure-track position. Ph.D. or M.D. and research experience required. The successful candidate will participate in the teaching of nutritional biochemistry to undergraduate science and medical students, will establish a research program, and supervise graduate students (M.Sc. and Ph.D.). Bilingualism (French/English) would be an asset.

ASSISTANT PROFESSOR, BIOCHEMISTRY. Two non-tenure-track positions. Salary support for selected candidates will be sought through the Medical Research Council Scholarship program or the Natural Science and Engineering Research Council University Research Fellowship program. Appointees will establish a research program and supervise graduate students. A small amount of teaching (less than 25 percent of time) will be required.

Send curriculum vitae, names of three referees, and a brief account of current and planned research to: **Dr. J. Himms-Hagen, Department of Biochemistry, University of Ottawa, 275 Nicholas Street, Ottawa, Ontario, Canada K1N 9A9.**

ASSISTANT PROFESSOR Parasitology

The New York State (NYS) College of Veterinary Medicine is seeking applicants for a faculty position in the parasitology section of the Department of Preventive Medicine with specialization in the genetics of host-parasite interactions. Applicant should hold the D.V.M., M.D., and/or Ph.D. degree (or equivalent), have a record of relevant postdoctoral research, and must have demonstrated an ability to compete successfully for extramural research funding.

Responsibilities of this position include participation in the teaching of courses in veterinary parasitology, immunoparasitology, and the development of a graduate curriculum focusing on the genetics of host-parasite interactions and parasite ecology. Applicants should send curriculum vitae with personal bibliography and references to: **Dr. Raymond H. Cypess, Chairman of the Department, Preventive Medicine, NYS College of Veterinary Medicine, Cornell University, Ithaca, N.Y. 14853. Cornell University is an Affirmative Action/Equal Opportunity Employer.**

ASSISTANT PROFESSOR OF PLANT BIOCHEMISTRY

A position is available for a plant biochemist who will be responsible for direction and conduct of research into basic biochemical/genetic differences between closely related plants. Methods of approach will be at the discretion of the investigator, but a major part of his/her efforts will be to facilitate identification of cultivars and species of seeds. Cooperation with seed scientists, plant breeders/geneticists, and/or other scientists in the hiring department and elsewhere in the Cornell system is desirable. A Ph.D. degree in some area of plant physiology and/or biochemistry is required. Preference will be given to individuals with experience beyond the Ph.D. degree. Salary is competitive and commensurate with qualifications. Application deadline is 15 June 1981. Send curriculum vitae, transcripts, and names of at least three references to: **G. E. Harman, Department of Seed and Vegetable Sciences, New York State Agricultural Experiment Station, Geneva, N.Y. 14456.**

ASSISTANT RESEARCHER. Ph.D. with knowledge/experience in immunologic methods relating to parasitic infections. To carry out study on immunopathology of anisakid parasites, maintain parasites in vitro and collection of their secretions, test living parasites and their products for mutagenicity, antigenicity, and pathogenic potential. Submit curriculum vitae to: **Dr. Robert S. Desowitz, Department of Tropical Medicine and Medical Microbiology, University of Hawaii, 3675 Kilaua Avenue, Honolulu, Hawaii 96816. An Equal Opportunity Employer.**

POSITIONS OPEN

BIOCHEMICAL PHARMACOLOGIST

The Department of Biochemical Pharmacology of the State University of New York at Buffalo (SUNY/B) is seeking a biochemical pharmacologist (second position). An individual is sought with expertise in one or other of the following areas: CNS pharmacology with a biochemical orientation; biochemical endocrine pharmacology; cellular toxicology. The candidate should have a Ph.D. in pharmacology, and two or more years of experience beyond the postdoctoral level. Ideally, the applicant will have an ongoing and funded research program. Teaching responsibilities will include participation in undergraduate general pharmacology courses and research and teaching at the graduate level. Level: assistant professor (or under exceptional circumstances, associate professor), tenure-track. This advertisement refers to a second position. Individuals who applied for the previous position will be considered automatically for this position and need not resubmit their application. Please send curriculum vitae and the names of three references to: **Dr. D. J. Trigg, Department of Biochemical Pharmacology, 317 Hochstetter Hall, State University of New York, Buffalo, New York 14260. SUNY/B is an Equal Opportunity/Affirmative Action Employer. Deadline for applications: 1 May 1981.**

BIOCHEMIST—Grant-funded position for Ph.D. in academic research with at least 2 years of postdoctoral research experience in calcium and vitamin D metabolism. Experience in dissecting and handling single nephron segments under microscope preferable. Send curriculum vitae, references and list of publications to: **Dr. K. Kurokawa, Department of Medicine, University of California, School of Medicine, Los Angeles, Calif. 90024. Affirmative Action/Equal Opportunity Employer.**

BIOCHEMISTRY FACULTY POSITION

Indiana University School of Medicine, Department of Biochemistry, invites applications for the position of assistant professor of biochemistry, effective on or after 1 January 1982. Primary emphasis will be directed at appointing an outstanding individual. Some preference, however, may be given to applicants with interests in rapidly developing areas of biochemistry, such as the study of membrane function or molecular biology. Applicants must have exceptional postdoctoral experience and/or publications demonstrating productivity and originality in research. The successful candidate will have the background, commitment, and ability both to excel in the teaching of professional and graduate students and to develop a vigorous, independent research program. Please submit curriculum vitae, bibliography, and a short statement of future research goals by 15 June 1981, and arrange for letters of recommendation from three referees to be sent to: **Dr. P. J. Roach, Chairman, Search Committee, Department of Biochemistry, Indiana University School of Medicine, Indianapolis, Indiana 46223. Indiana University is an Equal Opportunity/Affirmative Action Employer, M/F.**

BIOCHEMIST—Position available at the assistant professor level. Applicant should hold a Ph.D. or equivalent in biochemistry. Postdoctoral experience teaching basic medical school biochemistry and clinical chemistry is desired. Salary commensurate with experience. Applicants should send curriculum vitae, including a summary of teaching and research experience, research interests and goals, and the names of three references, to: **Dr. Arnold L. Nagler, Dean, Pre-Clinical Medical Education, New York College of Osteopathic Medicine, P.O. Box 170, Wheatley Road, Old Westbury, New York 11568. An Equal Opportunity/Affirmative Action Employer.**

BIOLOGIST WANTED. A full-time, 9-month teaching appointment, within the Department of Biology, will be available August 1981. Rockhurst is a coed, private, Jesuit college of approximately 1400 students. Applicants should fit one of the following job descriptions. Applicants should be able to teach some combination of the following courses: human anatomy and physiology (two-semester course for sophomore nursing students), environmental physiology, comparative anatomy, bioengineering-bioinstrumentation, general physiology, or environmental science. **OR** Applicants should be able to teach microbiology, cellular biology, and pertinent areas of environmental science. Ph.D. preferred. Salary and rank commensurate with qualifications. Send curriculum vitae plus letters from three references to: **Dr. Nancy E. Walker, Chairman, Department of Biology, Rockhurst College, 5225 Troost Avenue, Kansas City, Missouri 64110. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

BIOLOGY FACULTY

The Department of Biology at the University of South Florida anticipates the availability of a tenure-earning faculty position commencing August 1981. Because of the size and existing diversity of the department, the area of specialization is not critical. The department is seeking a highly qualified individual with a commitment to research and teaching at the graduate and undergraduate level.

The department currently offers eight degree programs, including the Ph.D., and currently has almost 1000 undergraduate majors. Applicants should have the Ph.D. degree and submit curriculum vitae and three letters of recommendation to: **Chairman, Search Committee, Department of Biology, University of South Florida, Tampa, Fla. 33620. The University of South Florida is an Affirmative Action/Equal Opportunity Employer and minority individuals are strongly encouraged to apply. Salary and rank are negotiable. The closing date for applications is 17 April 1981.**

CERAMIC ENGINEER. For research on synthesis and surface characterization of oxide and supported metal catalysts and glasses for electronic applications. Required: Ph.D. in ceramic engineering; experience in Auger electron spectroscopy, x-ray diffraction, and familiarity with other surface characterization techniques; experience in synthesis of solid-state oxides and glasses; experience in Fortran programming. Salary: \$2780 per month. Send résumé, including list of publications, to: **Employment Services Division, Delaware State Department of Labor, 801 West Street, Wilmington, Del. 19801. An Equal Opportunity Employer, M/F.**

RESEARCH CHEMICAL ENGINEER. To conduct research on synthesis and process evaluation of heterogeneous catalysts and elucidation of the surface characteristics and chemistry of the catalysts. Required: Ph.D. in chemical engineering; research experience in solid catalyst synthesis, bulk and surface characterization by x-ray and electron spectroscopies, heterogeneous reactor design, and study of heterogeneous organic processes; extensive background in applied mathematics and computer programming. Salary: \$2800 per month. Send résumé, including list of publications, to: **Employment Services Division, Delaware State Department of Labor, 801 West Street, Wilmington, Del. 19801. An Equal Opportunity Employer, M/F.**

RESEARCH CHEMIST. For exploration of new synthesis routes to complex polycyclic and heterocyclic molecules with biological activity using organometallic intermediates and catalysts and elucidation of mechanisms of such reactions. Required: Ph.D. in organic chemistry; research experience in organometallic synthesis, chemistry of cyclic compounds, synthesis of natural product type molecules, and mechanistic studies of organic reactions; demonstrated high level of creativity. Salary: \$2500 per month. Send résumé, including list of publications, to: **Employment Services Division, Delaware State Department of Labor, 801 West Street, Wilmington, Del. 19801. An Equal Opportunity Employer, M/F.**

RESEARCH GENETICIST. Conduct and direct research on laboratory and pilot plant scale production of both pharmaceuticals and chemicals by microbial fermentation. Required: Ph.D. in microbial genetics; research experience in mutagenesis, determination of bacterial metabolic pathways, enzymatic biochemistry, and fermentation process development; knowledge of industrial scale fermentation equipment design and operation and of safety requirements for large-scale handling of all types of bacteria; demonstrated skill, in supervision of technical personnel. Salary: \$2900 per month. Send résumé, including list of publications, to: **Employment Services Division, Delaware State Department of Labor, 801 West Street, Wilmington, Del. 19801. An Equal Opportunity Employer, M/F.**

RESEARCH PLANT PHYSIOLOGIST. To conduct research on the biochemistry and regulation of photosynthesis at the chloroplast level. Required: Ph.D. in plant physiology; research experience in photosynthesis, chloroplast isolation and characterization, determination of metabolic pathways at the cellular level. Postdoctoral experience desirable. Salary: \$2400 per month. Send résumé, including list of publications, to: **Employment Services Division, Delaware State Department of Labor, 801 West Street, Wilmington, Del. 19801. An Equal Opportunity Employer, M/F.**

POSITIONS OPEN

BIOLOGIST. Continuing appointment in the Department of Biology, effective fall 1981, at the Berks Campus of The Pennsylvania State University. The position requires the teaching of introductory courses in general biology and zoology and intermediate courses in ecology and physiology. Ph.D. is required and appointment will be at the assistant professor level. Continuing scholarly activity, including research and publication, will be required. Application deadline: 15 May 1981. Send curriculum vitae, transcripts, and three letters of reference to: **Dr. William H. Neff, Box G, 208 Mueller Building, University Park, Pa. 16802.** *The Pennsylvania State University is an Affirmative Action/Equal Opportunity Employer.*

BIOLOGY. Assistant professor, tenure-track, Ph.D. required. Strong background in parasitology desirable but not absolutely essential. Will be expected to teach zoology one semester and parasitology the second semester. In addition, an advanced course in the candidate's specialty will be required. Research expected. Submit curriculum vitae and three letters of recommendation by 17 April 1981 to: **Warren R. Fleming, Interim Director, Division of Biological Sciences, 10 Tucker Hall, University of Missouri, Columbia, Mo. 65211.** *Equal Opportunity/Affirmative Action Employer. Applications from minority groups and women encouraged.*

CARDIOLOGIST—The Division of Cardiovascular Disease of the Department of Medicine at the University of Alabama in Birmingham has available five positions at the instructor and two positions at the assistant professor level. The positions are open to qualified individuals fulfilling three criteria. First, the individual must have experience in the care and management of patients with cardiovascular disease and in cardiac catheterization. Second, the individual must have a firm commitment to teaching programs oriented to medical students, graduate students, house officers, and fellows. Finally, the individual should have a research background and be able to carry out independent research. Apply to: **Division of Cardiovascular Disease, Department of Medicine, University of Alabama Medical Center, Birmingham, Alabama 35294, attention: Norma McSweeney; telephone: 205-934-3285.** *An Equal Opportunity/Affirmative Action Employer. Expiration date for receipt of applications: 30 April 1981.*

UNIVERSITY OF FLORIDA The Katharine Ordway Chair of Ecosystem Conservation

As part of its Eminent Scholars Program, the University of Florida announces the position of **CURATOR AND PROFESSOR** to occupy the Katharine Ordway Chair of Ecosystem Conservation shared jointly by the Florida State Museum and the School of Forest Resources and Conservation. The individual selected for this permanent position must be an experienced scholar of international reputation who will work with faculty and students to develop a multidisciplinary program of ecosystem research that complements the existing wildlife and habitat conservation programs of the two units. The endowment supporting the chair provides substantial operating and technical support, but the ability to attract additional outside support is important. Applicants should have a strong background in animal, plant, or community ecology, or closely related experience in field biology with research and teaching interests focusing on the preservation of unique ecosystems.

This position will be available as of 1 September 1981. Minimum salary: \$40,000, negotiable. Nominations, applications, and inquiries should be submitted by 30 April 1981 to:

**Dr. Robert A. Bryan, Chairman
Ordway Chair Search Committee
235 Tigert Hall
University of Florida
Gainesville, Florida 32611**

CYTOGENETICIST, Ph.D.

A well-established cytogenetics and prenatal detection laboratory serving the Central Valley of California needs a director as of May 1981: 350 blood and one marrows; 200 amniocenteses per year. Applicants need strong background and experience in initial cytogenetics and amniotic fluid cell culture, teaching and research opportunities. University of California, San Francisco, academic appointment possible. Send résumé to or call: **Cynthia Curry, D., Director, Medical Genetics, Valley Children's Hospital, 3152 North Millbrook, Fresno, California 93703; telephone: 209-225-3000, extension 1437.**

POSITIONS OPEN

CHAIRPERSON, BIOCHEMISTRY. The State University of New York (SUNY), Upstate Medical Center, is seeking qualified candidates for chairperson of the Department of Biochemistry in the College of Medicine. The department is responsible for courses in the College of Medicine and the School of Graduate Studies. Candidates for the position must have the Ph.D., M.D., or equivalent degree. Significant teaching and research achievement is required. Experience in administration is desirable. Qualified candidates may submit curriculum vitae and bibliography to:

**I. M. Weiner
Chairman of the Search Committee
Department of Pharmacology
SUNY-Upstate Medical Center
766 Irving Avenue
Syracuse, New York 13210**

The State University of New York is an Affirmative Action/Equal Opportunity Employer.

CHAIRMAN DEPARTMENT OF ANATOMY

Texas Tech University School of Medicine is accepting applications for the position of chairman of anatomy. Candidates should be professionally mature with experience in teaching, a strong background in research, and demonstrated administrative skills. The School of Medicine is located on the campus of Texas Tech University and is the initial component of the Health Sciences Center. Other health professional schools are in the planning phase. The deadline for receipt of applications is 1 June 1981. Please send inquiries and curriculum vitae to:

**Richard A. Lockwood, M.D., Chairman
Anatomy Chairman Search Committee
Department of Surgery
Texas Tech University School of Medicine
Lubbock, Texas 79430**

UNIVERSITY OF BRISTOL CHAIR IN BACTERIOLOGY

The University proposes to make an appointment to the chair in bacteriology which will become vacant on 1 August 1981, as a result of the appointment of Professor M. H. Richmond as vice-chancellor of the University of Manchester.

Candidates who are suitably qualified in any field of microbiology are invited to submit applications by 7 May 1981. Further particulars of the appointment may be obtained from: **The Registrar and Secretary, University Senate House, Bristol, BS8 1TH, England.**

CHEMICAL OCEANOGRAPHER—Research associate, M.S., marine organic geochemistry and its relation to ocean productivity, Cooperative Institute of Marine and Atmospheric Sciences, University of Miami, and National Oceanic and Atmospheric Administration (NOAA). Contact: **Chairman, Search Committee, D. K. Atwood, NOAA/AOML, 15 Rick-enbacker Causeway, Miami, Florida 33149.**

DIRECTOR for the GORGAS MEMORIAL LABORATORY, PANAMA, a private, nonprofit organization. Will direct aggressive expanding medical research and training programs in Latin America. Emphasis on diseases of tropical regions; program areas include ecology, virology, parasitology, bacteriology, epidemiology, and immunology. Experience in management of research programs required. Applicant must have or be willing to develop working knowledge of Spanish and English. Starting salary range: \$48,000 to \$52,000, negotiable based on training and experience. Starting date: fall 1981. Please send letter of interest and current curriculum vitae to: **Jack W. Miller, M.D., President, Gorgas Memorial Institute, 2001 Wisconsin Avenue, NW, Washington, D.C. 20007.** *Equal Opportunity Employer.*

EDITOR

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

POSITIONS OPEN

DEAN COLLEGE OF SCIENCES THE UNIVERSITY OF ARKANSAS AT LITTLE ROCK

The University of Arkansas at Little Rock (UALR) invites applications and nominations for the position of dean, College of Sciences. The dean is the chief academic officer for the college, which includes Departments of Biology, Chemistry, Earth Science, Mathematics and Computer Science, Nursing, and Physics and Astronomy.

Additional information and further description of the position may be obtained by writing:

**Leslie Wyatt, Chairperson
Dean's Search Committee
Fine Arts 164, UALR
33rd and University
Little Rock, Arkansas 72204**

An Affirmative Action Employer

NATIONAL SCIENCE FOUNDATION DIVISION OF OCEAN DRILLING PROGRAMS DEPUTY DIVISION DIRECTOR

National Science Foundation (NSF), Division of Ocean Drilling Programs, is seeking qualified applicants for permanent appointment as **Deputy Division Director.** This position has a salary range of \$44,547 to \$50,112.50 per annum. The incumbent will augment and assist the Division director in assigned managerial and program oversight activities to ensure that Division operations are effective and within the context of approved program goals and related federal and NSF policies and procedures. He/she will formulate policy recommendations, develop long-range plans and budgets; supervise special studies; serve as Division focal point for staffing and personnel Division activities. Applicants should have an appropriate degree in the physical or engineering sciences, or the equivalent in experience, plus demonstrated experience in management of a large scientific project or field office. Applicants should send letters of interest and SF-171 or current résumé to: **The National Science Foundation, Division of Personnel and Management, Personnel Administration Branch, 1800 G Street, NW, Washington, D.C. 20550, attention: Odessa G. White, Announcement Number EX 81-17.** For further information, telephone: **Odessa G. White at 202-357-7840.** Recruitment is open until position is filled.

An Equal Opportunity Employer

DIRECTOR CENTER IN ENVIRONMENTAL TOXICOLOGY

The Department of Biochemistry at Vanderbilt University is seeking a director of the Center in Environmental Toxicology, an interdisciplinary program initiated in 1967 and funded primarily by the NIEHS. The Center includes faculty and research in several departments, including Biochemistry, Pharmacology, Chemistry, and Pathology. The director will have an appointment as professor or possibly associate professor of biochemistry and should have had extensive experience both in research and research administration. The primary emphasis of this Center is on biochemical toxicology including mechanism of activation and of action of environmental toxins. Interested, highly qualified candidates should send a letter describing their background and current research interests, curriculum vitae, and the names of three references to: **Chairman, Department of Biochemistry, Vanderbilt University School of Medicine, Nashville, Tennessee 37232.** Applications for this position must be received no later than 17 April 1981.

DIRECTOR OF OPHTHALMOLOGICAL RESEARCH

Responsibilities include establishment of a research laboratory in the Department of Ophthalmology at the University of Cincinnati.

Qualifications include the Ph.D. degree; an established record of scientific productivity; an interest in teaching and collaboration with clinicians; credentials which would permit appointment as associate professor; and an interest in either vitreo-retinal physiology, neurophysiology of the visual system, or some aspect of the cornea.

Substantial startup funds are available. Reply to: **Joel G. Sacks, M.D., Professor and Director, Department of Ophthalmology, University of Cincinnati Medical Center, 231 Bethesda Avenue, Room 6004, Cincinnati, Ohio 45267.** Telephone: 513-872-5151.

The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer, M/F/H.

POSITIONS OPEN

DIRECTOR, TOXICOLOGY INSTITUTE—New York State Department of Health. The New York State Health Department's Division of Laboratories and Research is seeking a Ph.D. or M.D. researcher to plan and direct a diversified environmental toxicology research and analysis program. Current programs carried out by a staff of more than 100, of whom 30 plus hold a Ph.D. or M.D. degree, and with an annual budget of about \$2,250,000, include organic toxicology analysis and R & D; biochemical toxicology; neurotoxicology; genetic toxicology; physiological toxicology, and inorganic toxicology. The laboratory facilities and instrumentation available are superior.

Salary: commensurate with education and experience. The Division of Laboratories and Research offers a stimulating environment in which a staff of 1000, including some 250 M.D.'s and Ph.D.'s, pursue applied and basic research and undertake analytical testing in a wide range of environmental and clinical programs related to the public health. Qualifications: M.D. or Ph.D. in a relevant field and at least 5 years of pertinent research experience. Candidates should have at least 2 years of experience as the director of a multidisciplinary research program.

Send curriculum vitae to: **Director, Division of Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, N.Y. 12201.** An Equal Opportunity/Affirmative Action Employer.

DIRECTOR Postharvest Institute for Perishables

For AID project under ongoing, long-term contract with the University of Idaho to establish an international Postharvest Institute for Perishables. Responsible for planning, budgeting, coordination, implementation, and evaluation of international postharvest loss programs; for organizing and chairing international conferences on postharvest losses; public relations program. Domestic and international travel required.

Qualifications: University degree (Ph.D. preferred) in following or related fields: food science, agriculture, agricultural economics, rural sociology/anthropology, horticulture. Proven administrative abilities in multidisciplinary program. Several years of experience working in a developing country. Above average working knowledge of Spanish and/or French; other foreign language knowledge desirable. Salary and rank commensurate with training and experience. State retirement, life and health insurance plans, annual and sick leave.

Position available immediately. Application deadline: 1 May 1981 or until suitable candidate is found. Send résumé and at least three letters of reference to:

R. W. Schermerhorn, Co-Director
Postharvest Institute for Perishables
College of Agriculture
University of Idaho
Moscow, Idaho 83843
Telephone: 208-885-6262

An Affirmative Action/Equal Opportunity Employer and Educator

ETHOLOGIST

The Department of Ecology and Behavioral Biology seeks an ethologist of assistant professor rank for a temporary appointment during the academic year 1981-1982 while a permanent faculty member is on sabbatical leave. Applicants should have demonstrated research excellence in the area of experimental ethology or behavioral neurobiology, and evidence of excellence in teaching. Teaching duties will include: "mechanisms of animal behavior" (one quarter, senior, graduate student) and "introductory zoology" (one quarter, freshman). A change in status to a postdoctoral research appointment following 1982 is possible if grant support can be obtained by the individual independently or cooperatively with a faculty member.

Applicants should send curriculum vitae, publications, and statement of research interests and teaching experience, and forward three letters of recommendation by 15 May 1981 to:

Dr. Carl D. Hopkins
Department of Ecology and Behavioral Biology
318 Church Street, SE
University of Minnesota
Minneapolis, Minnesota 55455

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

POSITIONS OPEN

ELECTRON MICROSCOPISTS

The Center for Electron Microscopy seeks candidates for two permanent academic professional positions (nontenure-tracks) to be filled by August 1981. Both positions are predominantly instructional and service-oriented in a campus-wide electron microscopy center. One position requires a strong theoretical and working knowledge of electron optics in both TEM and SEM, and a background in biological electron microscopy with an emphasis in one or more of the following techniques: freeze-fracturing, stereology, cryoultramicrotomy and/or computer-assisted analysis of electron micrographs. Ph.D. preferred. Salary open. Applications (curriculum vitae and four references) for both positions must be submitted by 20 April 1981 for equal consideration. Apply to:

Electron Microscopy Search Committee
Dr. J. R. Larsen, Chairman
University of Illinois
393 Morrill Hall
505 South Goodwin Avenue
Urbana, Ill. 61801
Telephone: 217-333-3044

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

ENVIRONMENTAL TOXICOLOGIST(S). Tenure-track openings at the Institute for Environmental Studies, University of Illinois at Urbana-Champaign. Ph.D. degree and demonstrated potential for research productivity required. To conduct original research on environmental toxicants; their low-dose effects on animals; their transport, transformation, and fate; their modification of behavior; or on a related specialty. Interaction with faculty and students in veterinary medicine, chemistry, genetics, engineering, and so forth, is possible. Salary and rank open. Send curriculum vitae, brief description of research goals, and names of three references to: **Richard Larson, Chairman, Toxicologist Search Committee, 306 Environmental Research Laboratory, 100 West Western Avenue, Urbana, Illinois 61801.** Telephone: 217-333-7269. Position available now. Closing: 15 May or until filled.

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

FACULTY POSITION—PHYSIOLOGY

The West Virginia School of Osteopathic Medicine invites applications for a tenure-track faculty position in physiology. Duties include teaching in the areas of neurosensory and musculoskeletal physiology using an organ system approach to medical education and committee participation. Research facilities are available and research is encouraged.

Send curriculum vitae and names of three references to: **Kirk Herrick, D.O., Dean for Academic Affairs, West Virginia School of Osteopathic Medicine, 400 North Lee Street, Lewisburg, West Virginia 24901,** no later than 15 May 1981.

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITION. We are seeking an outstanding research investigator whose program involves either biogenesis of membranes or the role of membranes in differentiation. Departmental research is focused around membranes and membrane-related phenomena. Position will be available 1 July 1981. The salary is competitive. Send curriculum vitae, bibliography, and names of references to: **Dr. Martin Morrison, Department of Biochemistry, St. Jude Children's Research Hospital, P.O. Box 318, Memphis, Tennessee 38101.**

Equal Opportunity Employer

Applications and nominations are invited for four tenure-track **FACULTY POSITIONS** in a research-oriented department with excellent facilities. We are seeking individuals who will develop active programs in the following areas:

Animal Physiology
Microbiology
Cellular Physiology
Molecular Genetics

Applicants especially interested in molecular aspects of regulation will be given preference for the microbiology and cellular physiology positions. Rank and salary are open for all four positions. Send curriculum vitae, selected publications, a brief description of research plans, and the names of three referees to: **Hiroshi Mizukami (Animal Physiology and Cellular Physiology), David Njus (Microbiology), or Albert Siegel (Molecular Genetics), Department of Biological Sciences, Wayne State University, Detroit, Michigan 48202.**

POSITIONS OPEN

FACULTY POSITION

Assistant Professor of Pharmacology
University of Massachusetts Medical Center

Available: Summer/fall 1981.

Requirements: Candidates must have either an M.D. or a Ph.D. for equivalent degree in pharmacology and at least 1 year of postdoctoral experience.

Duties include:

- 1) The teaching of medical and graduate pharmacology, particularly in areas involving general principles and the drug groups affecting the cardiovascular and nervous systems,
- 2) Development of an independent, externally funded research program in one of the above areas, and
- 3) Committee and service activity typically performed by medical school basic science faculty.

To apply: Submit a résumé and the names of three persons who can serve as references before 1 May 1981 to: **Dr. Neal Brown, Department of Pharmacology, University of Massachusetts Medical School, Worcester, Mass. 01605.**

An Affirmative Action/Equal Opportunity Employer

FACULTY POSITION in atmospheric science-climate dynamics; assistant professor. **Qualifications:** Ph.D. in atmospheric science or related field with strong background and evidence of experience in the theory, phenomenology, and numerical modeling of atmospheric motion systems and a demonstrated interest in the study of climate and its physical basis. **Teaching responsibilities include:** numerical prediction course and sharing in teaching of one or two other undergraduate courses in basic and applied theory and phenomenology and one graduate level course. **Research focus is on climate, its energetics, and dynamics.** These studies would complement existing projects involving hydrologic cycles, regional evapotranspiration, trace gas transport, and air pollution effects. Applicants should submit résumé, transcripts, copies of publications, and the names and addresses of at least three referees to: **Dr. Bryan Weare, Search Committee, Department of Land, Air and Water Resources, University of California, Davis, California 95616,** by 15 May 1981.

The University of California is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.

UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

Applicants are solicited for **FACULTY POSITIONS** in the following departments:

MEDICINE, two positions (Number 286, Number 287)—**Assistant professor/associate professor.** Participating member of the Pulmonary Disease and Critical Care Section. Serve on consultation service and bronchoscopy service. Must have experience in clinical and/or basic research. If an M.D., will attend general ward and intensive care. Closing date: 1 June 1981.

Applicants should send curriculum vitae, identifying vacancy number for which they are applying, to: **O. C. Coleman, Assistant Dean, College of Medicine, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Okla. 73190.** We are an Equal Opportunity Employer.

SRI INTERNATIONAL, on the San Francisco Peninsula, has a new position for a **GROUP LEADER IN RECEPTOR PHARMACOLOGY.** You must have demonstrated research interests and experience in molecular and biochemical aspects of receptor structure and function, as well as ability to set up an independent laboratory and manage a research group. Candidates should have proven publication record. Ability to work in interdisciplinary environments desirable. Ph.D./pharmacology or biochemistry, and 2 to 3 years of postdoctoral experience required. Send résumé to: **G. L. Solomon, SRI INTERNATIONAL, 333 Ravenswood Avenue, Menlo Park, Calif. 94025.** An Equal Opportunity Employer

INSTRUCTOR. Seeking individual with 3 or 4 years of postdoctoral experience with a strong background in cell biochemistry or membrane biochemistry study the biochemical and physiological mechanisms of neutrophil responses to chemotactic factors. Salary: \$21,000 per year. To begin 1 June 19 or as soon as possible thereafter. Send curriculum vitae to: **Elmer Becker, M.D., Department of Pathology, University of Connecticut Health Center, Farmington, Conn. 06032.** Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

LIPOPROTEINS UNIVERSITY HOSPITAL LABORATORY

M.S. or Ph.D. interested in working with clinical pathologist and clinical pharmacologist in analytical assays for serum lipoprotein parameters in patients under research protocols involving diets and drugs at a LIPID-ARTERIOSCLEROSIS Prevention Clinic of the Clinical Pharmacology Division.

Capacity to work independently, setting up new assays and analytical quality controls.

Opportunity for independent research on related areas part of the time. Salary: \$14,000 per year, depending on qualifications. Contact: Dr. Fred Plapp, Clinical Laboratories, University of Kansas Medical Center, 39th and Rainbow Boulevard, Kansas City, Kansas 66103.

An Equal Opportunity/Affirmative Action Employer

MEDICAL COMPUTING UNIVERSITY OF COLORADO SCHOOL OF MEDICINE

New assistant professor position in the Medical Computing Section of the Department of Biometrics. Appointee will teach medical and graduate students and help develop the research and service programs in this rapidly growing field. Applicants must hold an M.D. or Ph.D. degree and have experience or training in the application of computing in the clinical and research environments. Send résumé, summary of research and teaching aspirations, and names and addresses of at least three references to: Dr. W. R. Braithwaite, Department of Biometrics, University of Colorado School of Medicine, Denver, Colo. 80262. The University of Colorado is an Affirmative Action/Equal Opportunity Employer.

MEMBRANE ION TRANSPORT

Postdoctoral trainee position for person interested in identifying, characterizing, and reconstituting membrane proteins involved in permeation of Na⁺, H⁺, and phosphate across cellular membranes (including brush borders) of epithelia. This is an opportunity in an active research environment. Stipend according to NIH regulation. Send résumé and names of three references to:

Professor Darrell D. Fanestil
Department of Medicine (M-023)
University of California, San Diego
La Jolla, California 92093

MENTAL RETARDATION RESEARCH CENTER (MRRC)—

University of California, Los Angeles (UCLA)

A "hard money" faculty position for a neuroscientist or behavioral scientist with a primary interest in mental retardation. Research activities should be enhanced by direct access to a developmentally disabled population and/or an extensive data base concerning such individuals. Research should complement an ongoing program in human biochemical genetics, neurophysiology, epidemiology, or service system evaluation. The successful candidate must have sufficient professional experience to generate independent research support.

Submit curriculum vitae and the names of three references by 15 May 1981 to: Norma Antrim, Administrative Manager, UCLA-MRRC Research Group, Lanterman State Hospital, P.O. Box 100-R, Pomona, Calif. 91769.

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

PHYSIOLOGY—The Department of Physiology at the University of Massachusetts Medical School has an opening at the assistant professor level. Applicants should have at least 2 years of postdoctoral experience and demonstrated abilities in research and teaching. The successful applicant will be expected to develop an active independent research program in an area of physiology which complements those of other department members. He/she will also be expected to participate in the teaching of physiology to medical and graduate students. Candidates should submit curriculum vitae, current research interests and objectives, and three letters of reference to:

Dr. H. M. Goodman
Department of Physiology
University of Massachusetts Medical School
55 Lake Avenue, North
Worcester, Mass. 01605

The University of Massachusetts is an Affirmative Action/Equal Opportunity Employer. Qualified women and minority and handicapped persons as well as others are encouraged to apply.

POSITIONS OPEN

MICROBIOLOGIST/BIOCHEMIST. The Departments of Veterinary Microbiology and Parasitology and Biochemistry and Biophysics are seeking applications for a 12-month, tenure-track position. Academic rank and salary will be commensurate with experience. Applicants should have a terminal doctorate, postdoctoral experience, and the demonstrated ability to establish a research program in immunochemistry and glycoprotein biochemistry with special emphasis on *Brucella* antigens. Duties will be approximately 75 percent research and 25 percent teaching. Applicants should send curriculum vitae, statement of research interests, and names of three references to: Dr. L. G. Adams, Department of Veterinary Pathology, Texas A & M University, College Station, Texas 77843, no later than 1 May 1981. An Equal Opportunity/Affirmative Action Employer

TENURE-TRACK POSITION DEPARTMENT OF MINERAL ECONOMICS THE PENNSYLVANIA STATE UNIVERSITY

Applicants are sought for a tenure-track position at the full, associate, or assistant professor level in the Department of Mineral Economics, The Pennsylvania State University. The position will be filled for the academic year 1982-1983. Applicants must have a Ph.D. in economics, geological sciences, material sciences, operations research engineering, geostatistics, management sciences, finance, or resource economics, with a demonstrated interest in applying their professional knowledge to the study of mineral resources and industries. Applicants at the higher levels must have demonstrated research potentials appropriate to the faculty rank. The Department of Mineral Economics offers B.S., M.S., and Ph.D. degrees in mineral economics and has an interdisciplinary faculty. The salaries at each level are competitive. Please send résumé and example of published papers no later than 30 October 1981 to: Dr. William A. Vogely, Head, Department of Mineral Economics, 220S Walker Building, The Pennsylvania State University, University Park, Pa. 16802.

An Equal Opportunity/Affirmative Action Employer

NEUROBIOLOGIST—ASSISTANT PROFESSOR LEVEL

Position available to work in neurobiological laboratories at a medical school. Requirements: M.D. or Ph.D. with strong background in immunology, genetics, and molecular biology with at least 2 years of postdoctoral experience in neurobiology. Must be sufficiently familiar with morphology and physiology of the mammalian central nervous system to be able to produce monoclonal antibodies for developmental and functional studies of the visual system. Starting salary: at least \$22,000 per annum. Send résumé to: Mary Nelson, Boston Placement Office, Hurley Building, Boston, Mass. 02114, and quote job reference Number 1350.

NEUROCHEMIST OR NEUROBIOLOGIST, research position at postdoctoral level, available 1 July 1981, for purification and characterization of growth factors and related proteins from the brain in collaboration with Dr. Ramon Lim in a Division of Neurochemistry. Prefer background in protein chemistry, neurobiology, or cell biology. Send curriculum vitae, résumé, and names of three references to:

Dr. M. W. Van Allen
Department of Neurology
University of Iowa College of Medicine
Iowa City, Iowa 52242

The University of Iowa College of Medicine is an Equal Opportunity/Affirmative Action Employer.

NEUROPHYSIOLOGY. Two tenure-track positions. Ph.D., research/teaching in human motor behavior/control, undergraduate studies in physical education. Future graduate program in neuro-motor studies. Language of instruction: French. *Equal Opportunity.* Send pertinent documents to: Head, Department of Kinesiology, Québec University, Box 8888, Montréal, Québec, Canada H3C 3P8.

PHARMACOLOGIST—Position available at the assistant professor level. Applicant should hold a Ph.D., D.O., M.D., or Pharm.D. degree. Postdoctoral experience teaching basic and/or clinical pharmacology is desired. Applicants should send curriculum vitae and a summary of teaching and research experience, research interests and goals, and the names of three references to: Robert Mancini, Ph.D., D.O., Chairman, Department of Pharmacology and Toxicology, New York College of Osteopathic Medicine, P.O. Box 170, Wheatley Road, Old Westbury, New York 11568. An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

PHARMACOLOGIST. One full-time faculty position in Pharmacology will be available 1 July 1981 at the College of Osteopathic Medicine of the Pacific, Pomona, California. Teaching is of prime importance and experience in this area will be to the applicant's advantage. Position and salary will be commensurate with education and experience. Deadline for application with curriculum vitae and three letters of reference is 1 May 1981. Write to: Dr. G. H. Nelson, Assistant Dean of Basic Sciences, College of Osteopathic Medicine of the Pacific, 309 Pomona Mall East, Pomona, California 91766.

Affirmative Action/Equal Opportunity Employer

PHARMACOLOGISTS

The Department of Physiology and Pharmacology of Bowman Gray School of Medicine, Wake Forest University, invites applications from qualified individuals for available positions in pharmacology. Tenure-track positions, at the junior or senior levels, are available for candidates who are committed to teach medical and graduate students and have demonstrated ability for quality research. Preference will be given to candidates with a Ph.D. in pharmacology, postdoctoral experience, and research programs in autonomic, cardiovascular, or neuropharmacology. Opportunities for interactions in research programs between physiologists and pharmacologists in the combined departmental organization are encouraged and facilitated in a stimulating and somewhat unique environment. Application deadline: 15 May 1981. Curriculum vitae, description of current research programs, and three letters of reference should be sent to: Dr. Alvin Brodish, Chairman, Department of Physiology and Pharmacology, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, N.C. 27103.

An Equal Opportunity/Affirmative Action Employer

PHARMACOLOGIST

The Oklahoma College of Osteopathic Medicine and Surgery, a state-supported institution, has a tenure-track pharmacology position available 1 July 1981. Applicants must have a Ph.D. degree in pharmacology. Postdoctoral research and teaching experience preferred but not a requirement. Duties will include teaching pharmacology and participation in an interdisciplinary teaching program. Applications, including the names of three references, should be submitted, preferably by 30 April 1981, to:

Dr. George Brenner, Chairman
Pharmacology Search Committee
The Oklahoma College of Osteopathic Medicine
1111 West 17 Street
P.O. Box 2280
Tulsa, Okla. 74101

An Affirmative Action/Equal Opportunity Employer

For established **PHYSICAL THERAPY EDUCATIONAL PROGRAM** in School of Allied Health within comprehensive medical center. Required: master's eligibility for Kansas license, 5 years of experience (education administration, curriculum design/evaluation, academic teaching, research, clinic). Doctorate preferred. Negotiable benefits, including research support. Starting date: summer 1981. Application deadline: 15 May 1981. Send letter of interest, résumé demonstrating qualifications, and three names of references to: Search Committee Chairperson, Derieth M. Rone, Dietetics and Nutrition, University of Kansas Medical Center, Kansas City, Kans. 66103. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL IN CELLULAR/MOLECULAR BIOLOGY

Available 1 September 1981 to study organelle biogenesis. Interest areas include mtDNA mapping, genetics of multiplastidic algae, chloroplast nucleoid structure, in vitro chloroplast protein synthesis. Computer skills helpful.

Send résumé and three letters of recommendation to: Dr. R. A. Cattolico, Botany, AJ-10, University of Washington, Seattle, Wash. 98195.

POSTDOCTORAL POSITION. A research associate position is open in the laboratory of Dr. F. Peter Guengerich to study mechanisms of metabolism and halogen compounds in vitro and the polymorphism of microsomal cytochromes P-450 in laboratory animals and humans. A Ph.D. in chemistry, biochemistry, or a related discipline is required. Send curriculum vitae, brief summary of research, and three letters of reference to: Dr. F. Peter Guengerich, Department of Biochemistry, Vanderbilt University, Nashville, Tennessee 37232. *An Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORALS—Connective tissue and recombinant DNA. Two positions beginning about 1 May 1981. Both are 1-year appointments, which may be renewed. Challenging opportunity to use recombinant DNA to study the normal biosynthesis of collagen and genetic defects in the biosynthesis of collagen. Candidates must possess a master's degree with one or more years of experience, including supervision. Ph.D. in biochemistry or biological sciences preferred. Salary will depend upon qualifications; minimum: \$16,298, plus comprehensive benefit package and excellent working conditions. Please send curriculum vitae, including summary of pertinent experience, and names of three individuals who may be contacted for reference to: **Personnel Department, College of Medicine and Dentistry of New Jersey, Rutgers Medical School, P.O. Box 101, Piscataway, New Jersey 08854. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL - BIOPHYSICAL - BIOINORGANIC Ph.D. with biochemical or biophysical training and interest in metal ion-protein interaction. Application of new laser spectroscopic methods and lanthanide ion luminescence to probe calcium-binding proteins and nucleic acids [see *Science*, 206, 1194 (1979); *J. Am. Chem. Soc.*, 101, 334 (1979), 102, 3650 (1980)]. Position available immediately. Send curriculum vitae and letters of recommendation by 30 April to: **Professor William DeW. Horrocks, Jr., 152 Davey Laboratory, Department of Chemistry, The Pennsylvania State University, University Park, Pa. 16802. An Equal Opportunity/Affirmative Action Employer.**

**Joint Diseases Laboratory
Shriners Hospital for Crippled Children
1529 Cedar Avenue
Montreal, Quebec, Canada H3G 1A6**

There will be two postdoctoral vacancies and one graduate student (M.Sc./Ph.D.) vacancy from July 1981. Areas of research are autoimmunity to connective tissue macromolecules in rheumatic diseases, changes in cartilage proteoglycan chemistry and immunochemistry in arthritis, proteinase inhibitors in connective tissues and immunological studies of tumour-derived proteinases. The postdoctoral salaries will be in the range of \$14,750 to \$16,750. Graduate student bursaries will be \$9000 per annum. Applications, citing three referees, area of research interest, and providing full curriculum vitae, should be sent to: **Dr. A. R. Poole, Director**, at the above address. Telephone: 514-849-6208.

POSTDOCTORAL POSITION available beginning fall 1981 in the Developmental Biology Center. University of California, Irvine. Recent Ph.D. required preferably in the areas of molecular biology, developmental biology, or genetics. Research will be conducted in the laboratories of P. J. Bryant, J. L. Marsh (*Drosophila* developmental and molecular genetics), or R. Meyer (goldfish developmental neurobiology). *The University of California is an Equal Opportunity/Affirmative Action Employer.* Arrange for three letters of reference to be sent and submit a résumé and brief description of research interests and experience to: **J. L. Marsh, Developmental Biology Center, University of California, Irvine, Irvine, California 92717 by 1 May 1981.**

POSTDOCTORAL POSITION to study the influence of acute and chronic tobacco smoke exposure on pulmonary enzymes involved with the biotransformation of endogenous and exogenous compounds. Training in biochemical pharmacology, toxicology, or biochemistry preferred. Position open immediately. Send curriculum vitae and names of three references to: **Dr. William Lubawy, College of Pharmacy, University of Kentucky, Lexington, Kentucky 40506.**

An Equal Opportunity Employer

POSTDOCTORAL POSITION available immediately for studies concerning mechanisms of mammalian cell adhesion taking advantage of mutants blocked in the adhesion process. This is part of an active program in membrane biochemistry/cell biology. Technology currently employed includes surface labeling, 2D gel mapping, monoclonal antibodies, fluorescence microscopy, and liposome techniques. This is a NIH-funded position with a salary in the \$13,000 to \$15,000 range. A strong cell biology/biochemistry background is desired. Send curriculum vitae and two letters of reference to: **Dr. R. L. Juliano, Department of Pharmacology, University of Texas Medical School, Houston, Texas 77025. An Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION in tumor and transplantation immunology at hospital-based research laboratory. Candidates should have recent Ph.D. and strong background in cellular/tumor immunology. Experience with FACS desirable. Salary starts at \$16,000 plus fringe benefits. Send curriculum vitae and three references to: **M. M. Borton, M.D., Winter Research Laboratory, Mount Sinai Medical Center, P.O. Box 342, Milwaukee, Wis. 53201.**

POSTDOCTORAL POSITION available to study regulation of contractility and phagocytosis. Background in tissue culture, protein purification, or electron microscopy. Excellent collaboration with muscle and vision groups. Send curriculum vitae and two letters to: **Dr. V. T. Nachmias, Department of Anatomy, School of Medicine/G3, University of Pennsylvania, Philadelphia, Pa. 19104. Telephone: 215-243-8050. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION. Recent Ph.D. (or M.D., Ph.D., or D.V.M., Ph.D.) needed to join multidisciplinary programme studying neurotrophic interactions. Work involves purification of putative neurotrophic peptides from brain. Biochemical experience necessary, preferably with proteins/enzymes. Salary at Medical Research Council rates. Applicants should send curriculum vitae and arrange for three letters to be sent directly to: **Dr. M. P. Rathbone, Department of Neurosciences, McMaster University, Hamilton, Ontario, Canada L8N 3Z5.**

POSTDOCTORAL RESEARCH ASSOCIATE position, available 1 April 1981, for research on radical reactions of catecholamines and their oxidation products. Salary at NIH recommended levels. A background in ESR, photochemistry, or free radical chemistry would be helpful but not essential. Curriculum vitae and names of three references to: **Dr. Roger Sealy, National Biomedical ESR Center, Medical College of Wisconsin, P.O. Box 26509, Milwaukee, Wis. 53226. Equal Opportunity/Affirmative Action Employer.**

SENIOR RESEARCH ASSOCIATE-GENETIC TOXICOLOGIST available to design and implement programs to evaluate the effects environmental chemicals have on cellular toxicity and mutagenicity with special emphasis on biochemical mechanisms of action. Applicants must possess a Ph.D. in either cell biology or related field with at least 3 years of experience in tissue culture and ability to perform biochemical and cytogenetic assays on mammalian cells. Salary \$19,000 to \$26,000 per year. Send curriculum vitae and supporting letter(s) to:

**The Comprehensive Cancer Center
c/o Dr. George E. Milo or Dan Courti
Suite 302
410 West 12 Avenue
The Ohio State University
Columbus, Ohio 43210**

JPL—SYNTHETIC ORGANIC CHEMIST. Postdoctoral position available for research concerned with the development of fluorine-containing protecting groups for amino acids and the use of the latter derivatives in solid-phase-peptide synthesis (SPPS) monitored by fluorine-19 NMR. Experience in polymer chemistry and/or SPPS not necessary. Extensive experience in NMR desired but not absolutely necessary. Appointment would be for 1 year starting 1 September 1981, with extension for additional 18 months possible. Salary in the range of \$15,000 to \$18,000, depending on qualifications. Position open to U.S. citizens or permanent-resident aliens only. Please send curriculum vitae and three letters of recommendation to: **Dr. Stanley L. Manatt, 183-901, or Professional Development, Department E44, Jet Propulsion Laboratory, California Institute of Technology, 4800 Oak Grove Drive, Pasadena, Calif. 91109. An Equal Opportunity Employer, M/F.**

WILDLIFE ECOLOGIST. Assistant professorship with a 3-year appointment for 10-month, tenure-track position for Ph.D. in wildlife ecology or closely related field. Responsibilities include teaching two or three upper division or graduate level courses per year, supervision of graduate students, and development of a research program. Salary is competitive and commensurate with experience. Send letter of transmittal, complete résumé, and the names of three persons asked to submit letters of recommendation to: **Dr. J. H. Shaw, Department of Zoology, Oklahoma State University, Stillwater, Okla. 74078 by 17 April. Oklahoma State University is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

RENAL PHARMACOLOGIST/ PHYSIOLOGIST

Merck Sharp & Dohme Research Laboratories is presently seeking a renal pharmacologist/physiologist to conduct research in the renal field. The applicant should have a doctorate with 1 to 2 years of postdoctoral training and have a broad background in salt and water metabolism. Specific experience with renal blood flow measurement, prostaglandins, and serum angiotensin systems would be desirable.

Merck Sharp & Dohme Research Laboratories, Division of Merck & Company, Inc., is an industry leader in the development of biological and pharmaceutical products. An excellent salary, comprehensive benefit program, and a highly professional environment accompany this position at our attractive suburban Philadelphia location.

Please send curriculum vitae complete with publication record to:

George W. Brodhead-Personnel Manager

**Merck Sharp & Dohme
Research Laboratories
West Point, Pa. 19486**

Equal Opportunity Employer, M/F/H/V

RESEARCH ASSOCIATE OR SENIOR RESEARCH ASSOCIATE—A research position is available in an established research program of the Biomedical Engineering Laboratory of Rice University (in cooperation with personnel of the Texas Medical Center). Qualifications include a Ph.D. in engineering (with a biological orientation), biophysics, physiology, or equivalent training and experience. The research involves studies of the response of human blood platelets to various stimuli including shear stress applied in vitro under controlled conditions. The appointment will be for a 1-year term with the possibility of reappointment. The stipend is negotiable depending on experience and training. Send a brief résumé and three references to: **J. D. Hellums, Ph.D., Dean, George R. Brown School of Engineering, Rice University, Houston, Texas 77001. Rice University is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE (postdoctoral position). Peripheral and/or microcirculation, neural control, indicator-dilution techniques. Very recent doctoral degree. Position available 1 June 1981. Send résumé and three references to: **Dr. C. H. Baker, Department of Physiology, College of Medicine, University of South Florida, Tampa, Florida 33612. University of South Florida is an Equal Opportunity Employer.**

RESOURCE-ANALYST-FORESTRY Associate Professor

The Department of Forestry, University of Illinois, is seeking a person to conduct research and teach in policy-related interdisciplinary energy and natural resource issues. Specific areas include biomass energy, monetary and resource costs of sustainability, and net energy yield and valuating the bottomland forest as a total resource. A Ph.D. in science, engineering, economics, or related field with demonstrated competence in applying quantitative techniques and proven grantsmanship abilities are required.

Starting date: 20 August 1981.

Salary: Commensurate with training and experience.

Closing date: 1 June 1981.

Application procedures: Send résumé and three letters of reference to:

**Dr. I. I. Holland, Head
Department of Forestry
110 Mumford Hall
1301 West Gregory Drive
Urbana, Ill. 61801
Telephone: 217-333-2770**

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

POSITIONS OPEN

POSTDOCTORAL POSITION in anatomy to study visual system development in hamster. Experience in either intracellular recording techniques or electron microscopy desirable. Position available June 1981. Send curriculum vitae and references to: Dr. R. W. Rhoades, c/o Personnel Department, College of Medicine and Dentistry of New Jersey, New Jersey School of Osteopathic Medicine, P.O. Box 101, Piscataway, New Jersey 08854. An Equal Opportunity/Affirmative Action Employer, M/F.

POSTDOCTORAL RESEARCH POSITION in pharmacology to help develop cardiovascular and neurophysiological techniques to study the effects of antihypertensive and other agents on carotid baro- and chemoreceptor function. Experience in electrophysiological recording and perfusion techniques helpful. Two-year appointment, renewable; starting date: summer or fall 1981. Send curriculum vitae and three letters of reference to: Dr. W. R. Woolees, Department of Pharmacology, School of Medicine, East Carolina University, Greenville, N.C. 27834. Equal Opportunity thru Affirmative Action

Research Associate

Ph.D. required for a well established endocrine research laboratory studying thyroid hormone action.

Salary commensurate with experience and appropriate benefits. Send curriculum vitae to:

Martin Surks, M.D.
Department of Medicine

**Montefiore Hospital
and Medical Center**

111 East 210 Street
Bronx, N.Y. 10467

Equal Opportunity Employer, M/F

RESPIRATORY PHARMACOLOGIST/PHYSIOLOGIST. A postdoctoral NIH-funded research position is available to study the lung nonadrenergic inhibitory nervous system. Experience with in vivo and in vitro methodology for evaluating airway smooth muscle function beneficial. Send curriculum vitae and names of three references to: Dr. Louis Diamond, Director, Pharmacodynamics and Toxicology Division, University of Kentucky College of Pharmacy, Lexington, Ky. 40506. Equal Opportunity Employer.

STAFF POSITIONS FOR MARINE POLICY STUDIES

Applications are invited for one to three staff positions in the Institution's Marine Policy and Ocean Management Program. Successful applicants will be expected to engage in, develop, and raise financial support for research projects related to the use of the ocean, in collaboration with other marine policy and scientific professionals at the Institution. We are looking for creative individuals who are willing to develop new research efforts that combine the insights of various aspects of policy with marine science. Potential research programs could include, but are not limited to, marine energy and minerals problems, disposal of wastes at sea, policy and science issues related to the management of living marine resources. Applicants should possess the doctoral degree or the equivalent and have had experience in policy-related research. Appointments will be made for an initial term of 2 years. Salary and title will depend upon the experience and qualifications of the successful applicant.

Inquiries and requests for application forms should be addressed to: Dr. David A. Ross, Director, Marine Policy and Ocean Management Program,

Box 54P
**WOODS HOLE OCEANOGRAPHIC
INSTITUTION**
Woods Hole, Mass. 02543

Applications accepted until 31 May 1981

An Equal Opportunity Employer, M/F/H

3 APRIL 1981

UNIVERSITY OF RIYADH SAUDI ARABIA

The College of Agriculture, University of Riyadh in Saudi Arabia invites applications for faculty posts (Assoc. and Asst. Professors) and Lecturers, Demonstrators and Technicians qualified in the different fields of specialization outlined below, for the academic year 1981-82.

An applicant for faculty membership should hold a Ph.D. or an equivalent qualification, or have obtained the title from a university accredited by Riyadh University. An applicant for a lectureship should hold a M.A. degree. Arabic is the medium of instruction.

Need Associate or Assistant Professor in the:

Soil and Land Reclamation Department
Soil Mineralogy, Soil Microbiology, Soil Morphology and Land Taxonomy, Soil Chemistry and Soil Physics.

Agricultural Economics and Rural Sociology Department
Agricultural Economics (Agr. Development) and Agricultural Economics.
Animal Production Department
Sheep Breeding and Wool Technology and Animal Production/Physiology.
Food Industries Department
Dairy Technology and Microbiology, Food and Dairy Chemistry, Meat and Fish Technology and Cereals Technology.
Plant Protection Department

Pesticides.

Need Lecturers in the:

Plant Production Department
2 Horticulture - M.S. in Landscaping or Ornamental Plants and Olericulture - M.S. in Olericulture.

Agronomy Department
Irrigation - M.S. in Agronomy.
Plant Protection Department
Entomology - M.S. in Agricultural Entomology.

Need Demonstrators in the:

Agricultural Economics and Rural Sociology Dept.
2 B.S. in Agricultural Economics and 2 B.S. in Rural Sociology and Agricultural Extension.

Plant Production Department
B.S. in Horticulture.

Food Industries Department
2 Food Industries Specialists and 2 Dairy Specialists.
Agronomy Department
2 B.S. in Agronomy.

Plant Protection Department
B.S. in Plant Pathology and B.S. in Entomology (Apiculture).
Animal Production Department
3 B.S. in Animal Husbandry.

Need other posts filled in the:

Soil Department
2 Laboratory Assistants - Soil Physics, Soil Microbiology (preferably graduates of specialized institutes or with previous university or research institute experience not less than 5 years).

Agricultural Economics and Rural Sociology Department
Department Secretary (Intermediate diploma with Arabic/English typing).

Food Industries Department
2 Food Industries Technicians - B.S. Food Industries or intermediate diploma with experience in Microbiology laboratories/Food Industries laboratories (Chemistry) and 2 Dairy Technicians - B.S. or intermediate diploma with relevant experience in Dairy laboratories.

Dirab Agricultural Experimental Station and University Nurseries:
1 Agricultural Machinery Engineer - B.S. in Mechanical Engineering plus experience.
3 Mechanics, heavy duty equipment - Machinery diploma plus experience.
1 Building Maintenance Technician - Intermediate education plus experience.
1 Fitter - Diploma plus experience.
1 Carpenter - Diploma plus experience.
1 Sanitary Plumber - Diploma plus experience.
3 Green House Technicians - B.S. or Agricultural diploma plus lengthy experience in green houses.
2 Crops and Forestry Technicians - Agricultural diploma plus experience.
1 Vehicles Electrician - Diploma plus experience.
7 Propagation Technicians - B.S. or diploma in Agriculture plus experience in propagation techniques.
2 Typists/Secretaries - Commercial diploma plus experience.

Please send application papers, along with nonreturnable photocopies of academic and specialized experience credentials to:

Dean, College of Agriculture
P. O. Box 2460
Riyadh, Saudi Arabia

Send duplicate materials to:

Recruitment Office
University of Riyadh
c/o Saudi Arabian Educational Mission
2425 West Loop South
Houston, Texas 77027 USA

Selected candidates will be advised for personal interviews.

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR OF PHARMACOLOGY. Ph.D. with demonstrated expertise in neuropharmacology and especially neurotransmitter release, turnover, and receptor binding, and also experience in the physiology and therapy of experimental convulsive disorders. Research directed toward mechanisms of seizure disorders and development of new techniques for evaluation of candidate antiepileptic drugs. Salary contingent on qualifications. Submit résumés, with references and publications, by 30 April 1981, to: **Dr. Ewart A. Swinyard, Department of Biochemical Pharmacology and Toxicology, College of Pharmacy, University of Utah, Salt Lake City, Utah 84112.** *The University of Utah is an Affirmative Action/Equal Opportunity Employer.*

CORNELL UNIVERSITY SYSTEMATIC BOTANIST

The L. H. Bailey Hortorium of the Division of Biological Sciences seeks applicants for a faculty position, at open rank, in systematic botany, preferably with special interests in tropical vascular plants and those of horticultural or economic importance for September 1981. An appointee at the associate or full professor level may expect to assume the directorship of the Hortorium by 1984. Applicants must have a Ph.D., leadership potential, and a firmly established research program in systematic botany that integrates modern evolutionary theory and fieldwork. Duties will include teaching advanced level courses in systematic botany and a vigorous research program. Applicants should forward their curriculum vitae, a detailed statement of research interests, and the names of three references by 15 June 1981 to: **Dr. David M. Bates, L. H. Bailey Hortorium, 467 Mann Library Building, Cornell University, Ithaca, New York 14853.** *Cornell University is an Equal Opportunity/Affirmative Action Employer.*

WILDLIFE ECOLOGIST, Michigan State University (MSU), assistant professor, 12-month, tenure-track. Major responsibilities include undergraduate advising, teaching an undergraduate course in wildlife biometry, a graduate course in quantitative wildlife ecology, and an introductory service course or a graduate specialty course. The applicant will be expected to conduct research and publish results, and to do statistical consulting with graduate students and department personnel. Applicants must possess a Ph.D. in wildlife ecology and have a commitment to teaching, research, and public service.

Submit résumé, undergraduate and graduate transcripts, publications, three letters of recommendation, and statement of research and teaching interests by 30 May 1981 to:

Dr. Harold H. Prince
Search Committee Chairman
Department of Fisheries and Wildlife
Michigan State University
East Lansing, Mich. 48824

MSU is an Affirmative Action/Equal Opportunity Institution.

ZOO RESEARCH CURATOR. Research curator supervises and coordinates a multidisciplinary research program on zoo animals. The Ph.D. is required as well as research experience, publications, and demonstrated success in grant writing. Send curriculum vitae, publications, and three reference letters by 17 April 1981 to: **Lawrence Curtis, Director, Oklahoma City Zoo, 2101 Northeast 50, Oklahoma City, Okla. 73111.**

SYMPOSIUM

**1981 NATIONAL INSTITUTES OF HEALTH
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**Management of Hazardous Chemical Wastes
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Space is limited. For information:
1981 NIH Research Safety Symposium
Environmental Control and Research Laboratory
Frederick Cancer Research Center
P.O. Box B
Frederick, MD 21701
Telephone: 301-663-7167

COURSE

**BEHAVIORAL ECOLOGY OF TROPICAL
MARINE ZOOPLANKTON (four units)**
6 to 31 July 1981
University of Guam

Graduate and advanced undergraduates. Phyletic review of tropical epipelagic animals. Behavioral mechanisms, sensory biology, and ecology. Traditional sampling and in situ collection by instructor and students. Live plankton culture in laboratory. Individual projects in laboratory or at sea by divers.

Instructor: **W. M. Hamner.** Fee: \$180; dormitory: \$2.50 per day. For further information, contact: **Charles Birkeland, University of Guam Marine Laboratory, UOG Station, Mangilao, Guam 96913.** Submit letter of intent by 20 May.

GRADUATE STUDY

GRADUATE ASSISTANTSHIPS AVAILABLE

The Zoology Department of the University of Vermont invites applications from qualified individuals interested in pursuing a graduate degree for fall 1981. The department has programs leading to the doctorate and master's degrees, with strengths in **CELL BIOLOGY, COMPARATIVE PHYSIOLOGY, DEVELOPMENT, ECOLOGY, EVOLUTIONARY BIOLOGY, and GENETICS.** Most of those admitted to the program will be awarded graduate teaching assistantships, which include tuition remission. *Applications from minorities are especially welcome.* For further information and application materials, write to: **Dr. George M. Happ, Chairman, Zoology Department, University of Vermont, Burlington, Vt. 05405.** *An Equal Opportunity/Affirmative Action Employer.*

PROGRAMS

PRE- AND POSTDOCTORAL TRAINEESHIPS AND FELLOWSHIPS in an interdepartmental program in **EXPERIMENTAL PARASITOLOGY** are available, as of June or September 1981, at the University of Massachusetts/Amherst. **Traineeships** in biology, immunology, physiology, and biochemistry of zooparasites are limited to U.S. citizens or permanent residents; **fellowships** to those with experience in research on trypanosomes or trichomonads. Write to: **Dr. B. M. Honigberg, Center for Parasitology, Department of Zoology, University of Massachusetts, Amherst, Mass. 01003.** *An Affirmative Action/Equal Opportunity Employer.*

**LINEAR MODELS IN DATA ANALYSIS:
APPLICATIONS OF THE MULTIVARIANCE
AND MULTITEST PROGRAMS**

Johns Hopkins University
8 to 11 June 1981

Darrell Bock and Jeremy Finn will offer an intensive training program in the use of the **MULTIVARIANCE VI** and **MULTITEST III** programs in combination with the new **MULTITEST** preprocessor, as applied to the model building approach to data analysis. A computer laboratory will be included. Tuition: \$290. Write: **L. Budd, 5835 Kimbark, Chicago, Ill. 60637.** Telephone: 312-753-4887.

TRAINEESHIPS

**UNIVERSITY OF FLORIDA
COLLEGE OF MEDICINE
POSTDOCTORAL AND PREDOCTORAL
TRAINING IN TUMOR IMMUNOLOGY
AND TUMOR CELL BIOLOGY**

NIH postdoctoral and predoctoral traineeships are available with graduate research faculty in the following areas: **T-cell, B-cell recognition of tumors: Smith, Peck, and Klein; Tumor-associated antigens and tumor cell membranes: Smith, Klein, Kimura, Roberts, Wakeland, and Peck; Cytotoxic T-cell clones and antibody producing hybridomas: Smith, Roberts, and Klein; Avian retroviruses and cell differentiation: Moscovici; Analysis of anti-tumor effector mechanisms: Smith, Normann, Peck, and Kimura.** Applications are now being accepted for appointments beginning on 1 July 1981. A letter describing research interests, curriculum vitae, and letters of recommendation should be sent to: **Dr. Paul A. Klein, Program Coordinator, Department of Pathology, College of Medicine, University of Florida, Gainesville, Florida 32610.**

FELLOWSHIPS

PREDOCTORAL AND POSTDOCTORAL FELLOWSHIPS IN BIOCHEMISTRY. The Department of Biochemistry, University of Texas Health Science Center at Dallas, invites applications from qualified individuals who wish to pursue pregraduate or postgraduate studies in biochemistry. Major areas of emphasis include cell and developmental biology, endocrinology, enzymology, immunology, molecular genetics, pharmacology, and toxicology. Appointees will be supported by state and federal funds or Robert A. Welch Foundation Fellowships. Application forms and further information may be obtained from: **Chairman, Graduate Studies Committee in Biochemistry, The University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, Texas 75235.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH TRAINING FELLOWSHIPS

Fellowships available to residents of North America with Ph.D. or M.D. and less than 1 year of postdoctoral laboratory experience for beginning training in basic biomedical research. Three-year award includes annual stipend of \$15,000, \$1000 per annum research allowance; travel to fellowship location, and annual meeting. Application deadline: 15 August; fellowships activate following July. For application forms, write: **The Helen Hay Whitney Foundation, 450 East 63 Street, New York, N.Y. 10021.**

PREDOCTORAL FELLOWSHIPS IN RESPIRATORY AND CARDIOVASCULAR PHYSIOLOGY

The Physiology Division of the Johns Hopkins University, Department of Environmental Health Sciences, invites applications from qualified candidates with interest in obtaining the Ph.D. degree in the above areas of physiology. Admissions material should be submitted as soon as possible for the academic year beginning September 1981. For further information and application forms, please call:

Dr. Wayne Mitzner (telephone: 301-955-3612)
Department of Environmental Health Sciences
Division of Environmental Physiology
The Johns Hopkins University
School of Hygiene and Public Health
615 North Wolfe Street
Baltimore, Maryland 21205

POSTDOCTORAL AND PREDOCTORAL FELLOWSHIPS in the study of mucosal immunity and inflammation. NIH-supported project includes a study of salivary proteins, secretory IgA, and complement components. Very competitive stipends. Applicants must have an interest in protein chemistry and biochemical techniques. Send curriculum vitae, appropriate transcripts, and names of potential references to: **Dr. Robert J. Boackle, Department of Immunology, Medical University of South Carolina, Charleston, South Carolina 29425.**

POSTDOCTORAL FELLOWSHIPS IN VIROLOGY AND CELL PHYSIOLOGY to work on biological, biochemical, and immunological aspects of persistent infection of mice and macrophage cultures with the lactate dehydrogenase-elevating virus OR on the kinetics and regulation of hexose and nucleoside transport in untransformed and transformed cells and the isolation of the transporters. Send curriculum vitae and three letters of reference to: **P. G. W. Plagemann, Department of Microbiology, University of Minnesota, Minneapolis, Minn. 55455.**

MARKETPLACE

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GROUP LEADER SPECTROSCOPY

McNeil Pharmaceutical is seeking an experienced NMR Spectroscopist to head the Spectroscopy Group of the Research Division.

The primary responsibilities of this senior staff position will be to supervise the provision of all spectroscopy service (IR, UV, NMR, and MS), to conduct and participate in research projects with members of the chemical research and biological research departments. Primarily involve applications of NMR spectroscopy, to maintain or supervise the maintenance of all spectroscopic instrumentation, and to manage and administer the other members of the spectroscopy group.

The successful candidate will possess a PhD Degree, have a strong spectroscopic background with emphasis on NMR (experience in biological applications of NMR is preferred), have at least five (5) years experience, be a general instrumentalist with maintenance experience and be a good communicator with proven management ability.

We are a Johnson & Johnson Company with our ultra modern headquarters conveniently located in a beautiful country setting just outside Philadelphia, Pa. Our salary is commensurate with your experience and ability, a comprehensive benefits package is provided, and there is unlimited potential for continued professional growth. For immediate consideration forward your resume with salary history and requirements to Ms. Joan Grasso.

**McNEIL
PHARMACEUTICAL**
Spring House, Pa. 19477

Leadership Beyond Compliance,
M/F/H/V
A Johnson & Johnson Company

MARINE ECOLOGIST: The Southeast Fisheries Center's Beaufort Laboratory of the National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce, in Beaufort, North Carolina, is seeking a marine ecologist with scientific expertise in zooplankton feeding selectivity to serve for a period of 2 years under an Intergovernmental Personnel Assignment (IPA). The assignee will work cooperatively with investigators from the Beaufort Laboratory, NOAA's Atlantic Oceanographic and Meteorological Laboratory, and Woods Hole Oceanographic Institution to determine the structure and function of larval fish food webs in the northern Gulf of Mexico. This research effort is part of a larger program to determine the effect of contaminants on food chain dynamics in the Gulf of Mexico. Specific research responsibilities will include participation in cruises and conducting field and laboratory research on the feeding selectivity and carbon assimilation of zooplankton species which have been determined to be important food of larval fish. Only employees of state or local governments or institutions of higher education, who can obtain a 2-year leave of absence, are eligible to apply and must be able to begin work on or before 30 September 1981. An extension of 1 to 2 years is possible, depending upon research progress and availability of funds. Assignee will remain an employee of his/her respective organization. Base salary range is \$22,486 to \$30,543. Final salary determination will be based on candidate's current salary and qualifications. Reimbursement for salary, travel, benefits, cost-of-living adjustments, moving expenses, and so forth, is negotiable between employee's organization and NMFS. **TO APPLY:** Send an SF-171 "Personal Qualifications Statement," which can be obtained from any post office, and a list of publications to: **Dr. Ford Cross, National Marine Fisheries Service, Southeast Fisheries Center, Beaufort Laboratory, Beaufort, N.C. 28516.** For further information, telephone: **Dr. Cross at 919-728-4595 (FTS-670-2451).** Applications must be postmarked by 1 May 1981 in order to receive consideration. *An Equal Opportunity Employer.*

Research Associate

The East-West Center is a national educational institution founded to promote better relations and understanding among nations through cooperative programs of study, research, and training. Staff, visiting scholars and professionals, and graduate students work together in multinational multidisciplinary teams on problems of mutual concern. In its staff, the Center seeks excellence in team research, commitment to the development of research products with practical and policy applications, and ability to work cooperatively in these teams with people from other cultures and disciplines.

Applications and nominations are sought for academic staff positions in the Environment and Policy Institute. The positions are full-time fixed-term with the possibility of permanent.

REQUIRED: Ph.D. or academic equivalent plus at least three years experience in areas relevant to Institute programs. Proficiency in English. Positions are open for research on the following areas:

- * Policy and resource management analysis, focusing on transnational marine resource and management issues; on environmental dimensions of energy policies; and/or on water resources/quality analysis in Asia.
- * Management and utilization of tropical forests, forest lands, watersheds and conservation zones.
- * Professional education and training in the management of natural systems, with emphasis on Asia.

Cover letter should give examples which demonstrate ability to: (a) discover knowledge about natural resource and environmental issues, especially at the international level; (b) develop applications of this knowledge, e.g. curricula, educational materials, policy aids; and (c) design and implement research and education projects and activities in a team context, preferably multinational. Preferred: Experience in Asia/Pacific region and in natural resource and environmental analysis and assessment processes.

Salary commensurate with experience and qualifications. Cost-of-living allowance of 15% (subject to change). Applications will be considered in three pools. Applications with cover letter, complete curriculum vitae, and names and addresses of three professional references must be postmarked no later than May 15, 1981 for the first pool, no later than August 15, 1981 for the second and no later than October 30, 1981 for the third. Starting date flexible. Send to Rebecca Dixon, Personnel Office, Dept. 19, East-West Center, 1777 East-West Road, Honolulu, Hawaii 96848.

An Equal Opportunity Employer M/F

BIOTECHNOLOGY

General Manager/
Director of Research

Multi-national biotechnology company is seeking both a General Manager and a Director of Research. The successful candidate or candidates should have a broad background in technology and administration, with direct experience in some of the following: molecular biology, recombinant DNA, genetics, cell fusion, microbiology and fermentation. Both positions will report directly to the Board of Directors comprised of prominent members of the scientific and financial community. A liberal compensation package including equity and competitive salary is envisioned. The company location for this position will be on the East Coast with convenient access to major metropolitan areas.

Please address inquiries to:

**General Manager/
Director of Research
Science Box 59**

NRL

SUPERINTENDENT PLASMA PHYSICS DIVISION

**NAVAL RESEARCH LABORATORY
WASHINGTON, D.C.**

SALARY: \$52,247 to \$57,673 (current pay limitation is \$50,112.50 per annum)

DUTIES: As head of a division of 115 scientific, technical and support personnel, directs a broad program of basic and applied research in plasma physics. Areas of particular interest involve the physics of relativistic electron beams, intense ion beams, laser plasma interaction, Free Electron Lasers, Cyclotron masers, pulse power technology, plasma processes in the ionosphere and in space, and large-scale numerical modelling of plasma dynamic systems.

TO APPLY: Interested applicants should contact Mr. N. Lanzetta of the personnel office at (202) 767-3030 (call collect) to obtain application forms and information on procedures for applying:

All applications must be received by May 15, 1981.

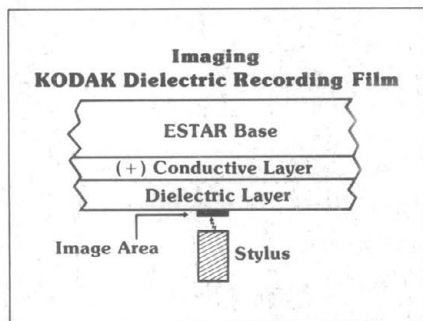
**NAVAL RESEARCH LABORATORY
Civilian Personnel Office
Code: 40-036-13 S
4555 Overlook Avenue, S.W.
Washington, D.C. 20375**

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Nice film without silver

Silver had better be saved for such ornaments of high civilization as elegant teaspoons, radiography of fractures, and the amplification of a light photon's kick by 10^9 .



When energy with which to write in tiny dots can be supplied like this, you don't need that kind of amplification. Estar base is nicer than paper for car-

rying the conductive layer and the dielectric layer that receives the toner to visualize the electrostatic image. (No light sensitivity, no chemicals.)

In the great hunt for formations likely still to be holding hydrocarbon treasure, the geophysical industry's plotters have been drawing pictures something like the young lady is holding, but on dielectric recording paper. Paper gets pretty conductive when the humidity is up. That makes it hard to hold a fine-structured, crisp, electrostatic image. Estar base doesn't have that problem. And the film is quite transparent, not just translucent. Therefore that fine detail can be reproduced in the diazo machine

without the services of somebody's copy camera.

On the chance that there are instrument people quite outside the geophysical industry who haven't heard about Kodak dielectric recording film SO-222 and are feeling some excitement, David R. Gadbaw of our Graphics Markets Division is standing by with a fresh supply of publication G-117S.

To obtain your copy, drop him a note at Kodak, 343 State Street, Rochester, New York 14650.

