

papers range from discussions of basic research aimed at elucidating a particular (although not always clearly relevant) environmental problem to descriptions, in relatively nonscientific terms, of aspects of an existing disposal practice. Each volume starts with an overview paper written by the editors, which provides the necessary background for placing the subsequent papers in context. The concluding chapter in each volume, also written by the editors, is less successful in attempting to look ahead to future needs.

Although the readers of these volumes will learn a lot about dumping practices on the continental shelf and in the deep sea, they will no doubt also recognize that the vast majority of the papers come from the community of environmental regulators and scientists who are involved in managing or supporting ocean dumping and who are often proponents of the practice. There is little in these volumes to indicate that some fraction of the scientific community has doubts, whether justified or not, about the merits of continued or enhanced sea disposal. Similarly, little is done to compare and contrast the input and impact of contaminants from sea dumping, river runoff, transport through the atmosphere, or rather massive land outfall which exists in some regions for the discharge of sewage and radioactive wastes. Indeed, the comparison of disposal options, which is required to decide which option provides the least detriment, does not receive the attention it deserves. A variety of sources contribute to the load of a contaminant in the ocean, and any truly comprehensive treatment of waste management and its potential long-term effects on humans and the marine environment must consider all such sources as well as the justification for the use of the marine environment for disposal.

One can also note that for the most part, and especially when dumping on the continental shelves is considered, the papers discuss the ability of the ocean to reduce the concentration of a contaminant through dispersal. Thus the open ocean is often treated as the sink for wastes disposed of on the continental shelves or slopes. There is little acknowledgment in the book that the ocean is a system with a finite capacity for some contaminants. For those contaminants the impact of dumping will often extend far beyond the continental shelves of a single nation, and the problem is truly one of international scope.

All in all, however, the volumes provide the general reader with a useful overview of the dumping of wastes at

sea. In addition, those wishing to become knowledgeable about the scientific aspects of the subject will find enough material to provide both some understanding of the existing basis for sea dumping and some insight into the needs for future research.

GEORGE NEEDLER

*Atlantic Oceanographic Laboratory,  
Bedford Institute of Oceanography,  
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## Books Received

**Case Studies in Game Design.** Henry Ellington, Eric Addinall, and Fred Percival. Kogan Page, London, and Nichols, New York, 1984. 261 pp., illus. \$23.95.

**Cationic Polymerization and Related Processes.** E. J. Goethals, Ed. Academic Press, Orlando, Fla., 1984. x, 431 pp., illus. \$35. From a symposium, Ghent, Belgium, Aug. 1983.

**Chemical Research Facilities.** An International Directory, 1984. Gisella Linder Pollock, Ed. American Chemical Society, Washington, D.C., 1984. xxxvi, 408 pp. + appendices. \$129.95.

**Chemistry of Peptides and Proteins.** Vol. 2. Wolfgang Voelter *et al.*, Eds. Walter de Gruyter, New York, 1984. xii, 497 pp., illus. \$84.10. From a symposium, Tübingen, Germany, June 1982.

**Citizen Participation in Science Policy.** James C. Petersen, Ed. University of Massachusetts Press, Amherst, 1984. xii, 242 pp. \$23.50; paper, \$9.95.

**Complexation of Trace Metals in Natural Waters.** C. J. M. Kramer and J. C. Duinker, Eds. Nijhoff/Junk, The Hague, 1984 (U.S. distributor, Kluwer Boston, Hingham, Mass.). xxii, 448 pp., illus. \$67.50. Developments in Biogeochemistry. From a symposium, Texel, Netherlands, May 1983.

**Computer Mathematics.** D. J. Cooke and H. E. Bez. Cambridge University Press, New York, 1984. xii, 394 pp., illus. \$49.50; paper, \$19.95. Cambridge Computer Science Texts, 18.

**Computers in Endocrinology.** David Rodbard and Gianni Forti, Eds. Raven, New York, 1984. xii, 349 pp., illus. \$59.50. Sero Symposium Publications from Raven Press, vol. 14. From a workshop, Porto Cervo, Sardinia, May 1983.

**Computing in Applied Science.** William J. Thompson. Wiley, New York, 1984. xxvi, 325 pp., illus. \$26.95.

**Concepts in Viral Pathogenesis.** Abner Louis Notkins and Michael B. A. Oldstone, Eds. Springer-Verlag, New York, 1984. xviii, 409 pp., illus. \$29.50.

**Conflict in Higher Education.** State Government Coordination Versus Institutional Independence. John D. Millett, with the assistance of Fred F. Harclerod *et al.* Jossey-Bass, San Francisco, 1984. xxiv, 285 pp. \$18.95. Jossey-Bass Higher Education Series.

**Conservation of Wall Paintings.** Paolo Mora, Laura Mora, and Paul Philippot. Butterworths, Boston, 1984. x, 494 pp., illus., + plates. \$140. Butterworths Series in Conservation and Museology. Translated from the French edition.

**Contemporary Biomaterials.** Material and Host Response, Clinical Applications, New Technology and Legal Aspects. John W. Boretos and Murray Eden, Eds. Noyes, Park Ridge, N.J., 1984. xxvi, 673 pp., illus. \$84.

**Control in Transportation Systems.** D. Klamt and R. Lauber, Eds. Published for the International Federation of Automatic Control by Pergamon, New York, 1984. x, 374 pp., illus. \$88.50. IFAC Proceedings Series. From a conference, Baden-Baden, Germany, April 1983.

**Evolution of Fish Species Flocks.** Anthony A. Echelle and Irv Kornfield, Eds. University of Maine at Orono Press, Orono, Oklahoma State University Museum of Cultural and Natural History, Stillwater, and Migratory Fish Research Institute, Orono, 1984. x, 257 pp., illus. \$28.95; paper, \$20.95. From a symposium, Tallahassee, Fla., June 1983.

**Evolutionary Biology.** Vol. 17. Max K. Hecht, Bruce Wallace, and Ghilleen T. Prance, Eds. Plenum, New York, 1984. xii, 351 pp. \$42.50.

**The Ideas of Particle Physics.** An Introduction for Scientists. J. E. Dodd. Cambridge University Press, New York, 1984. x, 202 pp., illus. \$44.50; paper, \$17.95.

**Nonequilibrium Phenomena II.** From Stochastics

to Hydrodynamics. J. L. Lebowitz and E. W. Montroll, Eds. North-Holland, Amsterdam, 1984 (U.S. distributor, Elsevier, New York). xii, 296 pp., illus. \$45. Studies in Statistical Mechanics, vol. 11.

**Not in Our Backyards!** Community Action for Health and the Environment. Nicholas Freudenberg. Monthly Review Press, New York, 1984. 304 pp. Paper, \$10.

**Nuclear Power and Public Responsibility.** L. E. J. Roberts. Cambridge University Press, New York, 1984. viii, 143 pp., illus. \$19.95.

**One's Man's Island.** A Naturalist's Year. Keith Brockie, Harper and Row, New York, 1984. Unpagged, illus. \$19.95.

**Plant Biosystematics.** William F. Grant, Ed. Academic Press, Orlando, Fla., 1984. xvi, 674 pp., illus. \$49.50. From a symposium. Montreal, July 1983.

**Plants and Ancient Man.** Studies in Palaeoethnobotany. W. van Zeist and W. A. Casparie, Eds. Balkema, Rotterdam, 1984. viii, 344 pp., illus. \$28.50. From a symposium, Groningen, May 1983.

**The Plastic Deformation of Metals.** R. W. K. Honeycombe, Edward Arnold, Baltimore, 1984. xiv, 483 pp., illus. Paper, \$34.50.

**Play in Animals and Humans.** Peter K. Smith, Ed. Basil Blackwell, New York, 1984. xii, 334 pp. \$29.95.

**Plurality of Worlds.** The Origins of the Extraterrestrial Life Debate from Democritus to Kant. Steven J. Dick. Cambridge University Press, New York, 1984. x, 246 pp., illus. Paper, \$12.95. Reprint, 1982 edition.

**Polarons and Excitons in Polar Semiconductors and Ionic Crystals.** J. T. Devreese and F. Peeters, Eds. Plenum, New York, 1984. xiv, 471 pp., illus. \$72.50. NATO ASI Series B, vol. 108. From an institute, Antwerp, July 1982.

**Policy Issues for Computers, Communication, and Information.** Howard L. Resnikoff, Ed. Crane Russak, New York, 1984. iv pp. + pp. 169-450 + appendices. Paper, \$32. *The Information Society*, vol. 2, Nos. 3/4. From a workshop, Dedham, Mass., March 1983.

**Pollutants in Porous Media.** The Unsaturated Zone between Soil Surface and Groundwater. B. Yaron, G. Dagan, and J. Goldshmid, Eds. Springer-Verlag, New York, 1984. xvi, 296 pp., illus. \$49. *Ecological Studies*, vol. 47. From a workshop, Bet-J gan, Israel, March 1983.

**Polyacetylene.** Chemistry, Physics, and Material Science. James C. W. Chien, Academic Press, Orlando, Fla., 1984. xiv, 634 pp., illus. \$89.

**Population Biology and Evolution.** K. Wöhrmann and V. Loeschke, Eds. Springer-Verlag, New York, 1984. xii, 270 pp., illus. \$44. *Proceedings in Life Sciences*. From a symposium, Oberjoch, Germany, May 1983.

**Positional Controls in Plant Development.** P. W. Barlow and D. J. Carr, Eds. Cambridge University Press, New York, 1984. xii, 502 pp., illus. \$79.50.

**Pragmatics and Empiricism.** Brian Skyrms. Yale University Press, New Haven, Conn., 1984. xii, 143 pp. \$16.95.

**Prevention of Perinatal Mortality and Morbidity.** F. Falkner, Ed. Karger, Basel, 1984. vi, 182 pp., illus. \$44.50. *Child Health and Development*, vol. 3.

**Sleep Mechanisms and Functions in Humans and Animals.** An Evolutionary Perspective. Andrew Mayes, Ed. Van Nostrand Reinhold (U.K.), Wokingham Berkshire, 1983. x, 363 pp., illus. £23.50. *The Comparative Psychology of Animals and Humans*.

**Social Cohesion.** Essays toward a Sociophysiological Perspective. Patricia R. Barchas and Sally P. Mendoza, Eds. Greenwood, Westport, Conn., 1984. xvi, 203 pp., illus. \$29.95. *Contributions to Sociology*, No. 49.

**Social Dynamics.** Models and Methods. Nancy Brandon Tuma and Michael T. Hannan. Academic Press, Orlando, Fla., 1984. xx, 581 pp., illus. \$48. *Quantitative Studies in Social Relations*.

**Soil Mechanics and Foundation Engineering.** Vol. 1, J. R. Boyce, W. R. Mackechnie, and K. Schwartz, Eds. Published on behalf of the Division of Soil Mechanics and Foundation Engineering of the Zimbabwe Institution of Engineers by Balkema, Rotterdam, 1984 (U.S. distributor, Box 230, Accord, Mass.). x, 501 pp., illus. \$75. From a conference, Harare, Zimbabwe, 1984.

**Solid State Physics.** Advances in Research and Applications. Vol. 38. Henry Ehrenreich, David Turnbull, and Frederick Seitz, Eds. Academic Press, Orlando, Fla., 1984. xiv, 390 pp., illus. \$58.

**Source Book of Geriatric Assessment.** Liliane Israël, Djordje Kozarevic, and Norman Sartorius, Karger, Basel, 1984. Two volumes. Vol. 1, *Evaluations in Gerontology*. xvi, 439 pp. Vol. 2, *Review of Analyzed Instruments*. xii, 226 pp. \$224. Translated from the French edition (1984).

**The State and Nuclear Power.** Conflict and Control in the Western World. Joseph A. Camilleri. University of Washington Press, Seattle, 1984. xviii, 347 pp. \$25.

## AAAS NEWS

(Continued from page 46)

rent members' names from the lists we use, the system is not foolproof. One reason for this is the variation between names and addresses as they appear on our membership file and how they appear on the lists we acquire. Another reason is that our member files contain either a home or business address for each member but not both.

You can help us to reduce further the likelihood that you receive promotional mailings. To do that we need for you to provide us with a current mailing label from *Science* and your "other" address(es). These other addresses will be for internal use only and will not be used for purposes other than our own screening process described above.

The merging/purging system will never be perfect. However, we believe that the above procedure is one more step toward avoiding inconvenience to you and toward further controlling our costs. Please direct your responses and any questions to Carol L. Rogers, head, Office of Communications and Membership, AAAS, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036, or telephone 202-467-4460.

## Grants to Self-Sponsored Foreign Graduate Students to Attend 10th AAAS R&D Colloquium

AAAS expects a limited number of grants of up to \$250 to be available to assist self-sponsored foreign graduate students currently studying in the United States to attend the 10th AAAS Colloquium on R&D and Public Policy in Washington, D.C., 3 and 4 April 1985. Registration for successful applicants will be paid by AAAS.

Applicants should submit: (i) curriculum vitae, including telephone number; (ii) budget (roundtrip to Washington and estimated living expenses); and (iii) a short statement (250 to 300 words) describing the focus of current research, career plans, how training is expected to be applied on return to home country, and interest in attending the R&D Colloquium. Material should be sent to Denise Weiner, Office of International Science, AAAS, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036. Deadline for receipt of applications is 1 February 1985.

## Personnel Placement

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

**LINE CLASSIFIED ADVERTISING DEADLINES:**  
25 January issue (mailed 18 January): **4 January**  
1 February issue (mailed 25 January): **11 January**  
8 February issue (mailed 1 February): **18 January**  
15 February issue (mailed 8 February): **25 January**

**POSITIONS WANTED:** 40¢ per word, plus \$4 for use of box number, per week, \$10 minimum, per week. Prepayment required. This rate is available only to individuals seeking jobs.

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

## POSITIONS WANTED

**Aquatic Biologist/Water Quality Analyst:** 5 years of experience in applied pollution research, including computer modeling; multidisciplinary master's degree in environmental impact assessment; available immediately for professional or technical position, any location. Box 4, SCIENCE. X

**Recent Bioscience Ph.D.** with postdoctoral experience seeks position as foundation program officer. Box 2, SCIENCE. 1/4, 11

**Marine Invertebrate Biologist.** Tenured, associate professor seeks a position outside the province of British Columbia. Current research grant transferable under certain circumstances. Canadian landed immigrant and U.S. citizen. Dr. Peter V. Fankboner, Department of Biological Sciences, Simon Fraser University, Burnaby, British Columbia, Canada V5A 1S6. Telephone: 604-291-4473. X

**Neuropsychologist.** Ph.D., 1977. Specializes in emotional/behavioral and cognitive problems in adults and children with epilepsy. Wishes to join an academic department affiliated with a research-oriented epilepsy clinic/center. In Neurology Department since 1978, but severe budget cuts to our epilepsy program. Clinical services, teaching, publications, grants. Box 5, SCIENCE. X

**Pathology Resident** seeks full-time position to start mid-1986. Has strong interest in clinical genetic toxicology work, including both research and patient specimen screening and follow-up. Job also should preferably include conventional pathology duties, for example, surgical pathology or laboratory medicine; teaching responsibilities acceptable. Currently involved in urine mutagenicity screening using Ames test. Prior experience in mammalian cell culture, including mutagenesis and DNA repair mutant isolation and characterization [see *PNAS* 78, 3734 (1981)]. David B. Busch, Ph.D., M.D., University of Wisconsin, Department of Pathology, E5/379 CSC, 600 Highland Avenue, Madison, Wisconsin 53792. X

## POSITIONS WANTED

**Physical Biochemist,** MIT (Ph.D.), Yale (postdoctorate), with industrial experience involving enzymes in thin films; seeks challenging position in or near large metropolitan area. Box 3, SCIENCE. 1/4, 11, 18

**Research Technician** with broad experience in immunology, molecular biology, hybridization techniques, and cellular biology offers assistance in an American research laboratory (preferably). Reply to: Jeroen Knops, Institute of Immunology and Genetics, German Cancer Research Center, Im Neuenheimer Feld 280, D-6900 Heidelberg, Federal Republic of Germany. 1/4, 11, 18, 25

**Research Technician/Graduate;** M.A. 1984 (thesis: paraquat toxicity to fathead minnows under varying conditions of turbidity and water hardness). Five years of laboratory experience in herbicide/plant physiology research with U.S. Department of Agriculture. Seeking position as research assistant (Ph.D.) or biologist in stream ecology or aquatic toxicology. Robert Snyder, Weed Science Research, Building 1301, Fort Detrick, Frederick, Maryland 21701-0578. X

**Technical Editor/Writer/Coordinator** seeks position with industry/government/university, Hartford-Springfield. Currently (4 years) with electric power industry, control systems: development of training, proposals, brochures. Experience in textbook publishing, 8 years in biophysics/biochemistry research. Box 238, SCIENCE. X

**Toxicologist.** Ph.D. Seeking industrial position: desk or laboratory. Postdoctoral research in DNA, mutagenesis mechanisms and assays, molecular biology of mitochondria, metabolism and distribution studies, halogenated hydrocarbons, development of analytical methods. Trained in safety evaluation and risk assessment. Additional academic experience in biochemistry, immunology, and dermatology. Experience in personnel training and supervision. Well-organized researcher/administrator, excellent communicator. 1620 Argyle Crescent, Ann Arbor, Mich. 48103. Telephone: 313-995-0113. X

## POSITIONS OPEN

### ANATOMY ASSISTANT PROFESSOR

We are seeking an assistant professor, tenure-track, to join an outstanding Anatomy Department with strong research programs in **DEVELOPMENTAL NEUROBIOLOGY, NEUROGENETICS, CELL BIOLOGY, and DEVELOPMENTAL BIOLOGY**. Applicant should have demonstrated high potential regardless of area of specialization.

Send curriculum vitae and names, addresses, and telephone numbers of three referees to: **Marcus Jacobson, Chairman, Anatomy Department, University of Utah School of Medicine, Salt Lake City, Utah 84132.**

The deadline date for applications is 1 March 1985. Applications submitted after the deadline may be considered if no qualified candidates have applied by that date.

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

Outstanding candidates, with a Ph.D. or M.D. degree and postdoctoral training in biochemistry/molecular biology/cell biology, should apply for one tenure-track position at the **ASSISTANT PROFESSOR** level (1 July 1985 anticipated starting date). Successful candidates will have exceptional research and teaching potential as evidenced by current curriculum vitae, publication list, summary of research objectives, and three letters of reference. Address all correspondence to: **Search Committee Chairperson, Department of Biochemistry and Molecular Biology, Box J245, JHMC, University of Florida, College of Medicine, Gainesville, Florida 32610, by 1 March 1985.**

*Equal Opportunity/Affirmative Action Employer*

Candidates with a Ph.D. degree in biochemistry/molecular biology should apply for a 2-year teaching appointment with the title **ASSISTANT RESEARCH SCIENTIST** (1 July 1985 anticipated starting date). Successful candidates will have exceptional teaching potential as evidenced by current curriculum vitae, summary of career objectives, and three letters of reference. Address all correspondence to: **Search Committee Chairperson, Department of Biochemistry and Molecular Biology, Box J-245, JHMC, University of Florida College of Medicine, Gainesville, Florida 32610, by 1 March 1985.**

*Equal Opportunity/Affirmative Action Employer*

## POSITIONS OPEN

The Oriental Institute and the Department of Near Eastern Languages and Civilizations of the University of Chicago expect to have a tenure-track position in **ANCIENT NEAR EASTERN ARCHAEOLOGY**, concentrating on Syria/Anatolia, beginning 1985/1986. Candidate should have Ph.D., extensive field experience in the Near East, and publications. Responsibilities will include teaching as well as directing and raising funds for a field project. Rank and salary dependent on qualifications. Deadline: 18 January 1985. Contact: **Professor McGuire Gibson, Chairman, Search Committee, The Oriental Institute, 1155 East 58 Street, Chicago, Ill. 60637.**

The Department of Microbiology, Louisiana State University (LSU), Baton Rouge, as part of a vigorous expansion program, invites applications for **four** tenure-track positions at the **ASSISTANT PROFESSOR** level. Candidates must have postdoctoral experience, strong credentials in microbiology and/or molecular biology/genetics, and a commitment to establish a research program of excellence in one of the following areas: (i) gene expression or genome organization in microorganisms, (ii) molecular biology/genetics with applications in biotechnology, (iii) molecular biology/genetics as related to agricultural microbiology, and (iv) molecular immunology. All candidates should be experienced in recombinant DNA techniques. Send curriculum vitae, a description of future research plans, and a list of three references to: **Dr. M. D. Socolofsky, Chairman, Department of Microbiology, 508 Life Sciences Building, Louisiana State University, Baton Rouge, La. 70803.** All searches will continue until suitable candidates are found. *LSU is an Equal Opportunity Affirmative Action Employer.*

### THE UNIVERSITY OF CALIFORNIA (San Francisco)—(UCSF) Department of Biochemistry and Biophysics ASSISTANT PROFESSOR

The Department of Biochemistry and Biophysics of UCSF has open two tenure-track teaching/research positions at the assistant professor level. Criteria for appointment include: (i) strong teaching skills, evidenced by successful command of the subject, presentation skills and skill in motivating students (graduate students and postdoctorates only); (ii) exceptional research skills, evidenced by wide recognition for quality, creativity (originality) and significance, with continued progressive application of these skills; and (iii) demonstrated interest and involvement with university/public service (faculty, campus policy-making, scholarly service to the public and to students). Applicants should be specialists in molecular aspects of cell, molecular or developmental biology, and/or genetics. Submit current curriculum vitae and evidence of meeting above criteria, including letters of reference, by 28 February 1985 to: **Dr. Bruce Alberts, c/o Gabrielle Bamford, School of Medicine, Department of Biochemistry and Biophysics S-964, UCSF, San Francisco, California 94143.** *An Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR— ANATOMY/PHYSIOLOGY

The Department of Biological and Environmental Sciences, McNeese State University, invites applications for a tenure-track position in anatomy and physiology to begin August 1985. Applicants must have a Ph.D.; a strong commitment to research and teaching at both graduate and undergraduate levels is essential. Send résumé and summary of research plans by 15 March 1985 to: **E. Davis Parker, Jr., Chairman, Anatomy Search Committee, Department of Biological and Environmental Sciences, McNeese State University, Lake Charles, La. 70609.** *An Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR— ENVIRONMENTAL SCIENCE

The Department of Biological and Environmental Sciences, McNeese State University, invites applications for a tenure-track position in environmental sciences to begin August 1985. Applicants must have a Ph.D. and should have expertise in solid waste disposal and public health. A strong commitment to research and teaching at both graduate and undergraduate levels is essential. Send résumé and summary of research plans by 15 March 1985 to: **Bruce C. Wyman, Chairman, Environmental Science Search Committee, Department of Biological and Environmental Sciences, McNeese State University, Lake Charles, La. 70609.** *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR.** Applications are invited for a tenure-track position effective 1 September 1985. Candidates must have a Ph.D. in botany with expertise in the areas of physiological and molecular botany. Primary teaching responsibilities will include courses in introductory plant biology, plant physiology, molecular botany, and participation in senior seminar. Although emphasis is placed on undergraduate teaching, continuation or development of an independent research program is expected. Applicants should submit a letter of application, curriculum vitae, three letters of recommendation, and transcripts by 1 March 1985 to: **Dr. James R. Gammon, Chairman, Search Committee, Department of Biological Sciences, DePauw University, Greencastle, Ind. 46135.** *An Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT PROFESSOR.** Applications are invited for one or more tenure-track positions at the assistant professor level in the Department of Bacteriology, University of Wisconsin-Madison. Candidates should have research interests and experience in either of the following areas: (i) genetic, cellular, or developmental biology of yeast or other lower eukaryotes; (ii) general microbiology with interests in anaerobic metabolism, bacterial gene expression, microbial development, bacterial photosynthesis, or other aspects of basic research in this area. Emphasis will be placed on selecting an outstanding individual with postdoctoral experience. The successful candidate will be expected to develop a dynamic research program in which she or he applies modern approaches to answer basic questions in one of the areas mentioned above. Teaching in the Department of Bacteriology curriculum and supervision of graduate students will be required. This is an outstanding opportunity for development of a strong research program due to the excellent facilities that can be made available by the Department of Bacteriology. The successful applicant, depending on research interests, will have the option of participating in NIH training grant programs in genetics and/or cellular and molecular biology. The application deadline is 1 March 1985. Detailed curriculum vitae, including research accomplishments and interests and a list of publications, as well as three letters of recommendation, should be sent directly to: **Dr. Glenn H. Chambliss, Search Committee, Department of Bacteriology, 1550 Linden Drive, University of Wisconsin, Madison, Wis. 53706.** *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR, Ph.D.,** with strong background in vertebrate embryology and histology and able to teach introductory biology. Temporary contract for 1 year beginning in August 1985 with possibility of renewal. Send curriculum vitae, complete transcripts, and three letters of reference by 15 February 1985 to: **Chair, Department of Biology, College of St. Catherine, St. Paul, Minn. 55105.** *An Equal Opportunity/Affirmative Action Employer*

**ASSISTANT PROFESSOR, Ph.D.,** broadly trained in biology with strong background in human and vertebrate anatomy and physiology including neurology. Tenure-track position beginning August 1985. Send curriculum vitae, complete transcripts, and three letters of reference by 15 February 1985 to: **Chair, Department of Biology, College of St. Catherine, St. Paul, Minn. 55105.** *An Equal Opportunity/Affirmative Action Employer*

**ASSISTANT PROFESSOR OF NUTRITION.** Our current faculty opening is a tenure-track position effective 1 July 1985. Responsibilities include development of an extramurally funded, independent research program relevant to human nutrition problems, graduate and undergraduate teaching, and university and professional service. Candidates should hold a Ph.D. in nutrition or may present a related doctoral degree plus significant training in nutrition. Particular attention will be paid to those individuals who possess experience in nutritional research in the areas related to immunology, genetics, or endocrinology. Postdoctoral research experience with publications and college teaching experience are desirable. To apply, submit a statement of research objectives and teaching interests, curriculum vitae with reprints, and names, addresses, and telephone numbers of references by 1 March 1985 to: **Dr. Susan Oace, Department of Nutritional Sciences, University of California, Berkeley, Calif. 94720.** Ask one or two references to send letters directly to the search committee; other references may be contacted by us. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSISTANT OR ASSOCIATE PROFESSOR OF ANATOMY

The Department of Anatomy of The Ohio State University is seeking to fill two tenure-track positions.

1) An individual trained as a **gross anatomist.** Candidates should have a Ph.D. in anatomy with teaching experience in gross anatomy and postdoctoral training or experience with imaging techniques (CT scan, NMR). Research interests should be in imaging and clinical anatomy. Teaching responsibilities will be in gross anatomy for professional students.

2) An individual trained as a **neuroscientist.** Candidates should have a Ph.D. in anatomy or physiological psychology with postdoctoral training in neurobiology. Research interests should be in recovery of function and plasticity related to spinal cord injury. Prospective neuroscientists should have technical expertise in electron microscopy and behavioral techniques. Teaching responsibilities will be in neuroanatomy for professional students. Both candidates are expected to establish a funded research program and participate in the graduate program.

Curriculum vitae and three letters of recommendation should be sent by 15 February 1985 to:

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

*The Ohio State University is an Equal Opportunity Employer.*

### MRC GROUP IN PERIODONTAL PHYSIOLOGY UNIVERSITY OF TORONTO

**ASSISTANT PROFESSOR IN MOLECULAR BIOLOGY.** Applications are invited for a position as molecular biologist in a multidisciplinary research group studying the regulation and differentiation of connective tissue cells. Other investigators include a biochemist, a cell biologist, an endocrinologist, and an electrophysiologist. The successful applicant will be expected to develop a research programme within the interest areas of the Group. Applicants should have a Ph.D. in molecular biology, or a Ph.D. in a related discipline with sound training in molecular biology. The initial appointment will be made at the assistant professor level (nontenure track) with salary paid according to MRC (Canada) salary scales for scholars and career investigators. Applications, with complete curriculum vitae and the names of three referees, should be sent to: **Dr. J. Sodek, Director, MRC Group in Periodontal Physiology, Faculty of Dentistry, 4384 Medical Sciences Building, University of Toronto, Toronto, Ontario, Canada M5S 1A8.**

### ASSISTANT OR ASSOCIATE PROFESSOR IN PHARMACOLOGY/TOXICOLOGY (Molecular/Cellular Basis of Drug Action)

A tenure-track faculty position in the above mentioned area is available immediately in the Department of Pharmacology and Toxicology at the University of Mississippi Medical Center in Jackson. Preference will be given to those working the areas of cDNA, genomic cloning, steroid and peptide hormone processing, receptor-linked intracellular events, and analytical drug metabolism. Persons interested in the molecular/cellular level from all areas of pharmacology and toxicology are invited to apply. Rank is at assistant or associate professor level depending on experience. Candidates must have formal training in pharmacology, at least 2 years of postdoctoral experience, and a record of research accomplishment. On the senior faculty level, and candidates should have a record of peer reviewed grants, research publications, and participation in teaching. On the assistant professor level, the candidates should be committed to developing a strong, independent, fundable research program. This faculty member is expected to participate in medical, dental and graduate teaching in one of the above areas. Complete curriculum vitae, including a brief statement of research interests, and complete addresses for three references should be sent to: **Dr. I. K. Ho, Professor and Chairman, Department of Pharmacology and Toxicology, University of Mississippi Medical Center, 2500 North State Street, Jackson, Mississippi 39216-4505.** *Equal Opportunity Employer, M/F/H/V.*

## POSITIONS OPEN

### MEDICAL COLLEGE OF OHIO AT TOLEDO DEPARTMENT OF BIOCHEMISTRY

The Department of Biochemistry invites scientists holding Ph.D. and/or M.D. degrees to submit applications for appointment as **ASSISTANT PROFESSOR** (tenure track). Candidates who approach problems of cellular control, growth, and development in eukaryotic systems in terms of gene regulation and structure are particularly encouraged to apply. The Medical College of Ohio is located in a growing residential area of Toledo. The Department of Biochemistry is in a modern building with well-equipped laboratories. The Biochemistry Faculty have broad research interests including gene regulation, hormone action, neurochemistry, and enzyme regulation. By 1 March 1985, candidates should submit applications which would include curriculum vitae, reprints, a statement of planned research, and three references to:

**Chairman of Search Committee**  
Department of Biochemistry  
Medical College of Ohio  
C.S. Number 10008  
Toledo, Ohio 43699  
*Equal Opportunity Employer*

### HARVARD SCHOOL OF PUBLIC HEALTH

The Harvard School of Public Health is seeking applications for an **ASSISTANT OR ASSOCIATE PROFESSOR OF BIOSTATISTICS**. The successful applicant will be required to lead research programs on statistical methodology in medical decision-making, treatment allocation methods in clinical trials, and cancer epidemiology, in addition to a program studying referral patterns, patterns of care and treatment of cancer in the elderly. Especially important will be teaching duties associated with the above specialties.

Applicants must hold a Ph.D. degree in biostatistics and must have substantial research experience in each of the following areas: medical decision theory; clinical trials; and clinical epidemiology (with an interest in cancer in the elderly). In addition, experience with analyzing large, medical databases is essential.

Applications will close on 1 March 1985. *Women and minority applicants are particularly encouraged.* Please send complete curriculum vitae and the names of at least three references to:

**Professor M. Zelen, Chairman**  
Department of Biostatistics  
Harvard School of Public Health  
677 Huntington Avenue  
Boston, Mass. 02115

**ASSISTANT PROFESSOR—MOLECULAR BIOLOGY.** The Biology Department of Mills College invites applications for a tenure-track position from persons with a strong background in molecular biology. Teaching responsibilities include immunology, neurobiology, developmental biology, cell biology, and part of general biology. Doctorate required. Preference given to applicants with demonstrated success in college-level teaching. Mills College is a liberal arts college for women located in the San Francisco Bay area. Position available 1 July 1985. Send curriculum vitae and three letters of reference by 1 February to: **Dr. Karen C. Swearingen, Biology Department, Mills College, Oakland, Calif. 94613.** *An Equal Opportunity Employer. Women and minorities are encouraged to apply.*

**THREE BIOLOGY POSITIONS** at the Jesuit university of the Pocono Northeast. Ph.D. required. September 1985. (i) **Endocrinologist.** (ii) **Developmental biologist.** Both to teach courses in general biology, anatomy and physiology, as well as courses in specialty. Both tenure track. (iii) **Vertebrate physiologist.** General physiology and anatomy and physiology. Sabbatical replacement. Send curriculum vitae and three letters of reference by 4 February 1985 to: **Dr. Michael Carey, Chairman, Biology Department, University of Scranton, Scranton, Pa. 18510.** *Equal Opportunity/Affirmative Action Employer and Educator.*

**BIOMECHANICAL ENGINEERING.** The Department of Mechanical and Materials Engineering of Vanderbilt University announces a tenure-track position at the assistant professor level. The position also involves teaching responsibilities in the area of mechanical engineering. Applicants should submit curriculum vitae and the names of three references to: **Chairman, Mechanical and Materials Engineering, Box 1612, Station B, Vanderbilt University, Nashville, Tenn. 37235.** *Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

The **DEPARTMENT OF PHARMACOLOGY**, School of Medicine, Oregon Health Sciences University (OHSU), invites applications for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level. A strong background in molecular research methodology is preferred. Send curriculum vitae, bibliography, letter, and names of three references to: **William K. Riker, M.D., Professor and Chairman, Department of Pharmacology L221, Oregon Health Sciences University, Portland, Oregon 97201.** *OHSU is an Equal Opportunity Employer.*

### ASSISTANT PROFESSOR OF PHARMACOLOGY AND TOXICOLOGY

Candidates with graduate training in pharmacology are invited to apply for a faculty position available July 1985. Qualifications include significant postdoctoral experience, a demonstrated commitment to teaching and research, and potential for establishing a quality independent research program. Special consideration will be given to those with a background in molecular pharmacology. Compensation will be commensurate with professional experience and the policies of the Wright State University (WSU) School of Medicine. Application deadline: 15 March 1985. Send current curriculum vitae and the names of three references to: **Albert E. Langley, Ph.D., Department of Pharmacology and Toxicology, Wright State University School of Medicine, Dayton, Ohio 45435.** *WSU is an Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT SPECIALIST IN AUTOMATED EDUCATION (CERL System Software Staff)

The Computer-based Education Research Laboratory (PLATO) of the University of Illinois has a full-time Assistant Specialist in Automated Education position open on the CERL System Software Staff. **DUTIES:** Architectural design of improvements and modifications to PLATO computer-based education systems; design, implementation and documentation of functional modules of PLATO systems; solving software and hardware problems encountered in the operation of PLATO systems.

**QUALIFICATIONS:** Experience with computer-based education (CBE), system design and development, mainframe and micro computers, assembly and high-level languages, and computer networking desired. The ability to work on own initiative and to cooperate within a group of 10 to 20 people is necessary. Familiarity with the TUTOR CBE programming language, programming CDC Cyber computers using COMPASS, and programming Motorola M68000 systems using assembler and Pascal is desirable.

**SALARY:** Commensurate with achievements and ability. The position is available immediately; the starting date is negotiable.

**CONTACT:** **Michael W. Walker, Head, System Software Staff, Computer-based Education Research Laboratory, University of Illinois, 252 Engineering Research Laboratory, 103 South Mathews, Urbana, Illinois 61801.** Telephone: 217-333-7316. To ensure full consideration, résumé and salary requirements must be received by 1 February 1985.

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

### DEVELOPMENTAL BOTANIST

The Biology Department of Carleton College is seeking a **DEVELOPMENTAL BOTANIST** with a broad background in vascular plants and a thorough training in morphogenesis/development to fill a tenure-track **ASSISTANT PROFESSOR** position in the department. The candidate is expected to have a firm commitment to teaching at the undergraduate level combined with a strong interest in maintaining a significant research program which lends itself to involvement of first rank undergraduate majors. Postdoctoral research experience would be an advantage but is not required. *Women and minority candidates are especially encouraged to apply.* The candidate will be responsible for part of a team-taught course in introductory botany, a course in plant development, a junior/senior level seminar (alternate years), and a course to be agreed upon. Interested applicants please send curriculum vitae, undergraduate and graduate transcripts, and three letters of reference to: **Dr. G. J. C. Hill, Chairman, Biology Department, Carleton College, Northfield, Minn. 55057.** Telephone: 507-663-4391. Closing date for applications: 15 February 1985.

*Carleton College is an Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### ASSOCIATE DEAN FOR ACADEMIC AFFAIRS

The West Virginia School of Osteopathic Medicine (WVSOM) invites applications and nominations for the position of associate dean for academic affairs.

The associate dean reports to the dean for academic affairs. The position responsibilities include administering the budget for all basic and clinical science divisions, works with the dean for academic affairs leading the faculty in the design, and definition of the curriculum, assists the dean in the development of educational policy and philosophy, and supervises academic department chairs. The position also serves as the curricular coordinator, establishing teaching schedules and visiting lecturer programs.

**QUALIFICATIONS:** An earned doctorate (Ph.D., D.O.), at least 5 years experience as a teaching faculty member in a medical or professional school, academic administrative experience at the departmental level or above, and familiarity with the systems approach to medical education.

**Salary:** Commensurate with experience and credentials.

**Applications:** Interested persons are requested to send a letter of application, résumé, and three letters of reference by 31 January 1985 to: **Harry P. Kornhiser, D.O., FACN, Dean for Academic Affairs, West Virginia School of Osteopathic Medicine, 400 North Lee Street, Lewisburg, West Virginia 24901.**

*WVSOM is an Affirmative Action/Equal Opportunity Employer.*

### BIOCHEMISTRY FACULTY POSITIONS

The Department of Biochemistry will have two tenure-track positions available beginning September 1985. Preference will be given to candidates with two or more years of postdoctoral experience, previous faculty status, established record of research productivity, and funded or pending research grants. We are particularly interested in individuals who are conducting research on problems of fundamental biological significance using the methods of modern molecular biology, including recombinant DNA technology. In addition, a commitment to excellence in teaching medical and graduate students is expected. Rank and salary will be commensurate with experience. Applications will be accepted until suitable candidates are identified. Please submit curriculum vitae, a brief summary of proposed research, and the names of at least three individuals who would be willing to provide letters of reference to: **Dr. Kenneth G. Mann, Professor and Chairman, Department of Biochemistry, University of Vermont, College of Medicine, Burlington, Vermont 05405.** *The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.*

### BIOCHEMISTRY/NUTRITION/ INTERMEDIARY METABOLISM

A scientist is required with proven research capability in the area of intermediary metabolism. Areas of interest could include enzyme biochemistry, protein, carbohydrate or lipid metabolism. The appointee must be willing to cooperate with other faculty with a clinical or nutritional background.

Responsibilities include teaching of veterinary students, the development of graduate courses for a Ph.D. program in veterinary medical science, and development of a productive research program with basic and/or applied relevance to veterinary medicine. Opportunities for participation in the teaching hospital, clinical laboratories, and college committees are available.

Virginia Tech has faculties involved in classical nutritional research in the College of Agriculture and Life Sciences and Human Resources which would not be duplicated by this position. There is also a Department of Chemistry in the College of Arts and Sciences and a Department of Biochemistry and Nutrition in the College of Agriculture, both of which are involved in biological research.

Qualifications required should include a veterinary degree and/or a Ph.D. or equivalent.

Closing date is 15 February 1985 or until position is filled. Send application to:

**Donald O. Cordes, Professor and Chairman**  
Division of Pathobiology and Public Practice  
College of Veterinary Medicine  
Virginia Tech  
Blacksburg, Virginia 24061

*An Equal Opportunity/Affirmative Institution*



## POSITIONS OPEN

**BIOPSYCHOLOGY**—Tenure-track assistant professor position in applied biopsychology Ph.D. program in the Department of Psychology at the University of New Orleans (UNO), effective August 1985. Specialization in biopsychology with teaching strengths in neuroanatomy and physiology at the graduate level. Candidate will be expected to develop a strong independent research program. A Ph.D. in psychology and evidence of productive research experience are required. Interested applicants should send a copy of their curriculum vitae, a summary of research strengths and interests, and three letters of recommendation to: **Dr. S. Thomas Elder, Chairman, Search Committee, UNO—Lakefront, New Orleans, La. 70148.**

*UNO is an Equal Opportunity/Affirmative Action Employer.*

**CANCER/MOLECULAR PATHOLOGIST.** Faculty position at associate professor level available in Department of Pathology. Primary responsibility: develop and lead active research program/cancer biology. Close collaboration with basic science and clinical departments now establishing a major Cancer Center Program is expected. Generous research space, technical support, and funds available. Applicants with M.D. or equivalent degree and established record of research in cancer should apply by 28 February 1985. Submit curriculum vitae to: **Chairman, Search Committee (Cancer Biology), Department of Pathology and Laboratory Medicine, University of Cincinnati Medical Center, 234 Goodman Street, ML 529, Cincinnati, Ohio 45267-0529. Affirmative Action/Equal Opportunity Employer.**

### CELL BIOLOGY AND PHYSIOLOGY WASHINGTON UNIVERSITY SCHOOL OF MEDICINE ST. LOUIS, MISSOURI

The Department of Physiology, Washington University School of Medicine, St. Louis, Missouri, is expanding its commitment to research in cell biology and cellular biophysics. Tenure-track positions are available for investigators in the following areas: (i) membrane protein function and biogenesis; (ii) assembly, function, and movement of intracellular organelles; (iii) cell motility and contractility; and (iv) cell-cell and cell-matrix interactions. Successful candidates will be expected to develop an independent research program and to participate in the training of medical and graduate students. Please submit curriculum vitae and the names of three references to: **Dr. Philip Stahl, Department of Physiology, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, Mo. 63110. An Affirmative Action/Equal Opportunity Employer.**

### CHAIRMAN—DEPARTMENT OF ANATOMY AND CELL BIOLOGY

The Eastern Virginia Medical School (EVMS) is currently searching for a chairman for the Department of Anatomy and Cell Biology. EVMS is a 10-year-old community-supported medical school, located in Norfolk, Virginia.

Candidates for this position should be actively engaged in research as evidenced by appropriate publications. Experience in undergraduate medical student and graduate education, as well as administration, are considered prerequisites.

Letters of application should include complete curriculum vitae, bibliography, and a list of references and should be addressed to: **Charles R. Peterson, M.D., Chairman, Anatomy and Cell Biology Search Committee, EVMS, P.O. Box 1980, Norfolk, Virginia 23501.** Applications should be received no later than 31 January 1985. *Affirmative Action/Equal Opportunity Employer.*

### POSITION AVAILABLE AT THE UNIVERSITY OF WASHINGTON IN DEVELOPMENTAL PSYCHOLOGY

A senior position at the University of Washington (associate or full professor) is available for an outstanding scholar in developmental psychology. The successful candidate is expected to have a strong reputation of programmatic research in any area of development, in the range birth through adolescence. A major consideration for the successful candidate will be potential for providing university-wide leadership among faculty involved in developmental research. We hope to fill this position by fall 1985. Applicants should provide curriculum vitae, three current publications, and four letters of recommendation by 1 March 1985 to: **Chair, Department of Psychology NI-25, University of Washington, Seattle, Washington 98195. An Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

### CHAIRMAN DEPARTMENT OF MICROBIOLOGY LOUISIANA STATE UNIVERSITY BATON ROUGE

Louisiana State University invites applications and nominations for the position of chairman of the Department of Microbiology. The department currently consists of 11 tenure-track faculty members, with plans for future expansion to 16. Approximately 230 undergraduates and 35 graduate students presently major in microbiology. Candidates for this position must hold a doctorate in microbiology or a related discipline, must have demonstrated a distinguished record of scholarship and professional achievement as evidenced by publications and grant awards, and must have leadership and administrative ability consistent with building a nationally recognized department. The salary will be commensurate with qualifications. The appointment is available as of August 1985. Candidates should submit application materials, including curriculum vitae, references, and statement of research interests, before 29 March 1985 to:

**H. D. Braymer, Chairman  
Search Committee  
Department of Microbiology  
Louisiana State University  
Baton Rouge, La. 70803**

*LSU is an Equal Opportunity/Affirmative Action Employer.*

### CHAIRPERSON Department of Biological Sciences University of Southern California

The University of Southern California seeks candidates for the position of chairperson of the Department of Biological Sciences. Candidates for the position must have an outstanding record of scholarly research and a demonstrated record of high quality in their instructional and related professional activities. They must be prepared to assume academic leadership and administrative direction of one of the fine broadly based departments in the university.

The department currently has 34 full-time faculty members, nine part-time faculty members, 56 teaching assistants, and a supporting staff of 21. In addition to the bachelor's degree program in biological sciences, through three research sections, it offers specific master's and doctorate programs in biology, marine biology, molecular biology, and neurobiology. Research programs have grown sevenfold in the past decade and continue to expand.

Applications and nominations should be sent to: **Biological Sciences Chair Search Committee, c/o Professor Harrison M. Kurtz, Department of Biological Sciences, University of Southern California, University Park, Los Angeles, Calif. 90089-0371.**

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

### ELECTRON MICROSCOPIST

**STAFF APPOINTMENT:** The Biology Department of Hamilton College seeks an electron microscopist to maintain the department's transmission electron microscope, participate in research with students and faculty members of biology and other science departments, and teach a one-semester course in electron microscopy techniques. It is expected that the successful candidate will have a master's degree. Independent research is encouraged. The purchase of a scanning electron microscope by the department is anticipated in the next year and it is expected that the candidate will have expertise on and will be able to maintain the scanning electron microscope as well. Applications should be received by 4 February 1985 and should include curriculum vitae, transcripts, and the names of three references. Send résumés to: **Professor Tom Brady, Chairman, Biology Department, Hamilton College, Clinton, N.Y. 13323.**

*Hamilton College is an Equal Opportunity Employer. Women and members of minority groups are strongly encouraged to apply.*

**ELECTRON MICROSCOPY.** Full-time laboratory manager to operate and maintain central EM facility. Duties include instruction in EM courses and operation of a Hitachi H-600 TEM and a Hitachi S-450 SEM with Kevex 7067 EDS. Opportunity to participate in research. Minimum: B.S. Salary negotiable depending upon qualifications. Applications accepted until 1 February or until the position is filled. Résumés to: **Dr. Roy C. Brown, Biology Department, University of Southwestern Louisiana, Lafayette, La. 70504.**

## POSITIONS OPEN

**School of Optometry, Indiana University, Bloomington, Indiana 47405,** anticipates a fall 1985 junior or mid-level tenure-track position in **CLINICAL ELECTROPHYSIOLOGY.** Candidate needs abilities to direct a facility, teach, and mount a major research project. *Indiana University is an Equal Opportunity Employer.* Send curriculum vitae and three reference letters by 28 February to: **Dr. Edwin C. Marshall, Chair, Department of Clinical Sciences, or Dr. S. Lee Guth, Chair, Department of Visual Sciences.**

**COLLECTIONS MANAGER**—University and Jepson Herbaria, University of California, Berkeley. The primary duties are to manage the plant collections, facilities, and non-academic personnel and to administer the daily operations of a collection of approximately 1.5 million specimens. Graduation from college with a major in botany and 6 years of directly related experience in curatorial work, including 2 years in a supervisory capacity, or an equivalent combination of education and experience, and knowledge and abilities essential to the successful performance of the duties assigned to the position are required. Master's degree in botany with a specialization in plant taxonomy preferred. Please send a résumé or curriculum vitae, a letter describing your background and qualifications, and names and addresses of three persons who will serve as references by 15 January 1985 to: **Dr. Thomas Duncan, Director, University Herbarium, University of California, Berkeley, Calif. 94720. The University of California is an Equal Opportunity/Affirmative Action Employer.**

### UNIVERSITY OF BRIDGEPORT invites applications/nominations, with résumés, for the post of DEAN OF THE COLLEGE OF SCIENCE AND ENGINEERING

The dean is the chief operating officer of the college, responsible to the provost for all aspects of the college's operation. The University is located in Fairfield County on Long Island Sound, 1 hour from New York City, in one of the most rapidly growing high technology regions of the country. The college has full national accreditations in the sciences and engineering.

Applicants should have broad technical knowledge, an earned doctorate, and a high level of initiative.

Submit nominations prior to 22 February 1985 to:

**Dean's Search Committee  
Personnel Administration—North Hall  
University of Bridgeport  
Bridgeport, Conn. 06601  
An Equal Opportunity Employer**

**DEVELOPMENTAL BIOLOGIST.** Ph.D., assistant professor, tenure-track. Responsibilities: Teach upper division course in developmental biology, and one or two others in areas such as reproductive biology, molecular evolution, or molecular genetics; participate in lower division courses for majors and eventually contribute to General Studies Program for non-majors; establish and maintain an active research program in the area of contemporary cellular, molecular, or genetic approaches to problems in differentiation or development. Application must include: (i) a letter that includes a statement of educational philosophy and career goals, (ii) curriculum vitae, (iii) a syllabus that would be used in a developmental biology course, and (iv) three letters of reference. Closing date for applications is 15 February 1985. Send to: **Dr. Steven Seavey, Chairman, Department of Biology, Lewis and Clark College, Portland, Oregon 97219. Lewis and Clark College is an Equal Opportunity/Affirmative Action Employer.**

**DIRECTOR OF AQUACULTURE AND FISHERIES PROGRAM,** 100 percent administration and research. Ph.D. or equivalent degree, recognized research achievement in a discipline related to aquaculture or fisheries, and demonstrated leadership are required. Research in aquaculture and/or fisheries would be expected. Candidates may request information or submit an application, including résumé, transcript, statement of research interests and leadership experience, list of publications, and the names and addresses of at least three references, to: **J. W. Evans, Chair of the Aquaculture and Fisheries Search Committee, College of Agricultural and Environmental Sciences, University of California, Davis, Calif. 95616.** Applications must be received by 1 April 1985. Position available 1 April 1985.

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

## POSITIONS OPEN

### CHAIRPERSON—DEPARTMENT OF VETERINARY MICROBIOLOGY

Applications are invited for the position of chairperson of the Department of Veterinary Microbiology at the New York State College of Veterinary Medicine. The interests of the department encompass clinical as well as molecular microbiology and immunology. The department's historical strength lies in infectious disease research. We seek an individual with outstanding academic accomplishments, including an established record of leadership in research and teaching in modern medical microbiology. Send letters of nomination or application to: **Ann Marcham, Assistant to the Dean, New York State College of Veterinary Medicine, Cornell University, Ithaca, New York, 14853.** Applicants should include a detailed résumé. The screening of applications will begin on 15 March 1985 and continue until a suitable candidate has been selected. *Cornell University is an Affirmative Action/Equal Opportunity Employer.*

We invite applications for the position of **DIRECTOR** of the Division of Hematology in the Department of Medicine of Jefferson Medical College and head of the Cardeza Foundation for Hematologic Research. The director is responsible for the organization and implementation of programs of research, teaching and clinical programs at Jefferson Medical College of Thomas Jefferson University. Please respond with curriculum vitae to: **Willis C. Maddrey, M.D., Chairman, Department of Medicine, Jefferson Medical College, 1025 Walnut Street, Philadelphia, Pa. 19107.**

**ECOLOGY AND FIELD BIOLOGY** (two positions)—Middlebury College. (i) Regular faculty appointment in **VERTEBRATE FIELD BIOLOGY** for an instructor or beginning assistant professor, responsible for a sophomore-level vertebrate biology course, a junior-senior-level vertebrate field biology course, and a senior seminar of his/her choosing. (ii) A temporary (2-year) appointment in **ECOLOGY** with the possibility of the position becoming a regular faculty appointment for an instructor or beginning assistant professor. Responsibilities will include an introductory ecology course, a junior-senior-level ecosystems analysis course, and a senior seminar. The successful candidates will be active in field or population biological research and interested in excellence in an undergraduate biology education. Ph.D. or all but dissertation required. Both positions are open 1 September 1985. Completed applications, including curriculum vitae, statements of teaching and research interests and goals, all undergraduate and graduate transcripts, and recommendations, must be postmarked by 8 February 1985. Three recent letters of recommendation should be sent directly to: **C. R. Landgren, Chairman, Department of Biology, Middlebury College, Middlebury, Vt. 05753. Telephone: 802-388-3711, extension 5435.** *An Equal Opportunity Employer.*

### ELECTRON MICROSCOPIST

Department of Biology  
University of Utah

#### MANAGER, BIOLOGY EM LABORATORY

Supervise and maintain departmental TEM/SEM facility. Serve and collaborate with faculty and others, provide training in EM use. Staff position, with possibility of appointment as nontenure-track assistant research professor. Opportunity for independent research. Send two copies of résumé of academic and TEM/SEM experience and three letters of reference through Friday, 1 February, to: **Dr. L. H. Wulstein, c/o Patricia Baucum, University of Utah, Personnel, 101 Annex, Salt Lake City, Utah 84112. Telephone: 801-581-6787.** *Equal Opportunity Employer.*

The University of Michigan Medical School, Department of Radiology, has on occasion open **FACULTY POSITIONS** within the department and its affiliated hospitals. Physicians filling these positions will take part in the programs of patient care, teaching, and research in the Department of Radiology. They will supervise the activities of house officers and aid in teaching of house officers and medical students. Qualified applicants must be American Board of Radiology-certified or Board-eligible. Previous training or work experience in an academic institution as well as demonstration of previous academic research and teaching experience are desirable. Academic rank will depend on qualifications and experience. Interested applicants should contact: **William Martel, M.D., Chairman, Department of Radiology, The University of Michigan Medical School, Ann Arbor, Michigan 48109.** *A nondiscriminatory, Affirmative Action Employer.*

## POSITIONS OPEN

### VACANCY ANNOUNCEMENT U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) RESEARCH TRIANGLE PARK, NORTH CAROLINA

Applications are invited for an **ENDOCRINOLOGIST** for a position located in the Experimental Biology Division, **Health Effects Research Laboratory.** It is a permanent, full-time Federal Civil Service position. Salary range is \$30,549 to \$39,711.

The successful candidate will be expected to: (i) develop a program of research to evaluate the endocrinologic consequences of chronic and acute exposure to radio-frequency radiation and toxic chemicals on the pituitary-adrenal axis; and (ii) closely collaborate with other scientists similarly evaluating physiological and developmental processes.

The candidate: (i) should possess a Ph.D. in physiology or a closely related field; (ii) have postdoctoral research experience; and (iii) have a demonstrated research ability as evidenced by publications in peer review journals. U.S. citizenship required.

Forward curriculum vitae and names of three persons we can contact for references to: **Cynthia F. Kelly, Personnel Management Division (MD-29), U.S. EPA, Research Triangle Park, North Carolina 27711,** no later than 28 January 1985.

*Equal Opportunity Employer*

**ENTOMOLOGIST** to conduct field and laboratory studies on the biology and control of insects feeding on shrubs, trees, and lawns. This research position is available immediately at the assistant scientist level. The Ph.D. is required. Salary: \$29,399. Please submit applications, consisting of undergraduate and graduate transcripts, a list of three references, curriculum vitae, reprints of publications, summary of Ph.D. thesis, and a statement of research interests to: **Dr. John F. Anderson, Head, Department of Entomology, The Connecticut Agricultural Experiment Station, P.O. Box 1106, New Haven, Connecticut 06504.**

*An Equal Opportunity/Affirmative Action Employer*

**FACULTY POSITIONS:** Three new tenure-track assistant professor positions are anticipated in the areas of: (i) **CELLULAR/MOLECULAR BIOLOGY**, (ii) **EXPERIMENTAL-THEORETICAL ECOLOGY**, and (iii) **COMPARATIVE BIOCHEMISTRY/COMPARATIVE TOXICOLOGY.** Successful candidates will be expected to establish a strong research program. Teaching responsibilities will include an advanced course in the specialty area and teaching an introductory course in alternate semesters. Candidates must have the Ph.D. degree, and postdoctoral experience is preferred. Applicants should correspond with the appropriate search committee and include curriculum vitae, transcript copies, a statement of research and teaching interests, and names of three references by 1 February 1985.

Department of Zoology and Physiology  
Louisiana State University  
Baton Rouge, La. 70803

*Louisiana State University is an Equal Opportunity Employer.*

**FACULTY POSITION: Marine Remote Sensing—**The Applied Ocean Science Program at the University of Delaware's College of Marine Studies invites applications for a tenure-track faculty position in marine remote sensing and optical physics. Teaching at the graduate level will be required, including courses on the theory and marine applications of electromagnetic waves. The successful candidate will be expected to develop a funded research program involving graduate students. This individual will have the opportunity to interact with ongoing research in remote sensing of wetlands biomass and estuarine productivity; coastal circulation and fronts; air-sea interaction; spectral/spatial analysis of satellite imagery; electromagnetic and sound wave interaction with suspended particles; and Laser Doppler characterization of marine plankton. Applicants should hold a Ph.D. in the physical sciences or engineering, with at least 3 years of experience in fundamental research on remote sensing. It is anticipated that the appointment will be at the assistant professor level, but applications from more senior persons are welcome. Applicants should send curriculum vitae, pertinent reprints, and names of three references by 31 January 1985 to: **Dr. V. Klemas, Director, Applied Ocean Science Program, College of Marine Studies, UNIVERSITY OF DELAWARE, Newark, Delaware 19716; telephone: 301-451-2336.** *The University of Delaware is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ENVIRONMENTAL ENGINEERING UNIVERSITY OF SOUTHERN CALIFORNIA

The Environmental Engineering Program of the Civil Engineering Department at the University of Southern California invites applications for a tenure-track faculty position at the assistant professor level. Individuals with background in hazardous waste management will be given preference. Candidates will be expected to develop vigorous research programs and to teach undergraduate and graduate classes.

The appointment is expected in September 1985. Applications will be accepted until the position is filled. A résumé and a list of three references should be sent to:

**Dr. Ronald C. Henry  
Biegler Hall of Engineering 213L  
University of Southern California  
Los Angeles, Calif. 90089-0231**

### ENVIRONMENTAL PATHOLOGY/ TOXICOLOGY

Postdoctoral positions available in trace metal teratology, respiratory and inhalation toxicology and aquatic toxicology (cytogenetics or teratogenesis) beginning January or March 1985 for those with a Ph.D., M.D., D.V.M., D.D.S. degree. Send curriculum vitae, two reference letters, reprints, and research interest statement to: **N. K. Mottet, M.D., Professor of Pathology and Environmental Health, SM-30, University of Washington, Seattle, Wash. 98195.**

*An Equal Opportunity/Affirmative Action Employer*

### EXPERIMENTAL PSYCHOLOGIST

Applications are invited for a new appointment in the Department which is open to those who have active research interests in some aspect of the psychology of perception. The facilities which are available are excellent, as is the support which the University provides for active research programmes.

Salary ranges for 1985-1986 will be: assistant professor: \$26,398 to \$38,002; associate professor: \$32,729 to \$52,242; professor: \$41,167 to \$64,374.

Applications, which should include curriculum vitae, the names of three referees, and reprints of recent publications, should be sent to:

**Dr. Henry James  
Department of Psychology  
Mount Allison University  
Sackville, New Brunswick, Canada E0A 3C0**

Closing date for receipt of applications is 31 January 1985.

The University of Puerto Rico, Mayaguez, is recruiting three full-time **FACULTY MEMBERS** for tenure-track positions available in August 1985. Successful candidates will have a Ph.D. and capacity for Spanish. Appointees will teach in both undergraduate and master's level courses and develop research programs. The following fields are sought: (i) industrial microbiology, (ii) general botany, (iii) cell molecular or invertebrate biology. Starting salary is \$18,600. Please send complete curriculum vitae and names of three references to: **Fernando Cofresi, Director, Department of Biology, University of Puerto Rico, Mayaguez, P.R. 00708.**

### DALHOUSIE UNIVERSITY DEPARTMENT OF PEDIATRICS FACULTY POSITION IN MEMBRANE RESEARCH

Established research group seeking senior or junior level colleague to conduct research in membrane biology. The successful candidate for this tenure-track position will have demonstrated independent research ability and expertise in: (i) metabolism or physical chemistry of lipids and membranes; or (ii) membrane and receptor cycling and interaction in endocytosis and lysosomal metabolism; or (iii) use of molecular biology techniques to explore membrane structure and function; or (iv) biochemical and molecular basis of inherited metabolic diseases. Academic rank and salary are dependent on qualifications and experience. *Dalhousie University is an Equal Opportunity Employer.*

Deadline for application is 30 January 1985.

Candidates please send curriculum vitae with references and a brief description of areas of interest and career goals to: **Dr. M. W. Spence, Department of Pediatrics, Dalhousie University, Clinical Research Centre, 5849 University Avenue, Halifax, Nova Scotia, Canada B3H 4H7.**

**ASSISTANT DEAN FOR RESEARCH, THE GRADUATE SCHOOL, UNIVERSITY OF COLORADO AT DENVER.** The Assistant Dean for Research of The Graduate School at Denver reports to the Associate Vice Chancellor for Academic Affairs/Dean of The Graduate School at Denver. The person filling this position will be the principal officer overseeing the operation of the Office of Research Administration which is responsible for all contracts and grants. The assistant dean for research will be expected to work with faculty to stimulate grant and contract applications to private, state and federal agencies, to develop increased corporate/university relationships, to administer campus programs supporting research and artistry, and to perform other duties as assigned by the associate vice chancellor. The University of Colorado (CU) at Denver, one of four University of Colorado campuses, is a rapidly developing, non-residential, comprehensive urban university, centrally located in downtown Denver. A major role of CU-Denver is serving the urban community with preprofessional, professional, and graduate programs. CU-Denver enrolls approximately 12,000 students, about 40 percent of whom are at the graduate level. **QUALIFICATIONS:** Earned doctorate and credentials necessary for a tenured appointment in an academic unit within the university. Applicants must demonstrate notable success in research and scholarship, have been personally successful in obtaining grants and/or contracts and preferably have had experience in research administration, promotion of research and resource development. **NOMINATIONS:** Nominations must be received by 23 January 1985. Please attempt to provide a current résumé and list of references for the nominee. **APPLICATIONS:** Applications with a current résumé and list of references including the addresses and phone numbers of references must be received by 6 February 1985. **NOMINATIONS AND APPLICATIONS** should be sent to: **Dr. David W. Greenfield, Associate Vice Chancellor for Academic Affairs and Dean of The Graduate School at Denver, University of Colorado at Denver, 1100 14th Street, Denver, Colo. 80202.** CU-Denver is an Affirmative Action/Equal Opportunity Employer.

The Department of Psychology of the University of Minnesota is seeking applications for a tenure-track or tenured position in **CLINICAL PSYCHOLOGY** at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. Candidates should have a Ph.D. in clinical psychology from an APA-approved doctoral program and have demonstrated research interests preferably in the study of psychopathological processes. The excellence of the candidate irrespective of research area will be an important consideration. Subareas of particular program interest within the psychopathology domain include but are not limited to child or developmental psychopathology, risk research, psychobiological, and quantitative approaches to the study of psychopathology.

Candidates are expected to carry on an active research program and contribute to the research training of graduate students. Teaching responsibilities will include undergraduate courses and participation in either the intellectual and/or neuropsychology portion of the graduate assessment sequence or the descriptive psychopathology sequence. Seminars in the candidate's area of interest are also possible. Salary and position level are competitive and will depend on the candidate's qualifications and experience. *The University of Minnesota is an Equal Opportunity Employer and specifically invites applications from women and minorities.* Candidates should submit curriculum vitae, four letters of reference, up-to-date representative publications, and a statement of long-term research interest to:

**Dr. Gloria R. Leon**  
Chairperson  
Search Committee in Clinical Psychology  
Department of Psychology  
N218 Elliott Hall  
75 East River Road  
University of Minnesota  
Minneapolis, Minnesota 55455

Applications must be received by 15 February 1985.

## NEW FACULTY POSITION

The Department of Psychology of the University of Minnesota invites applications for a position in **human behavior genetics**. The position will be either a tenure-track position at the assistant professor level, or a tenured position at the associate professor level.

We prefer applicants with experience in human psychopathology or quantitative genetics methods. Qualified candidates in all areas of specialization are, however, strongly encouraged to apply. Applicants with an interest in human psychopathology must have training in clinical psychology. All applicants must have completed their Ph.D. not longer than 7 years ago. Candidates are expected to carry on an active research program and be prepared to contribute to the research training of graduate students. Teaching responsibilities will include an advanced upper-division course in behavior genetics as well as graduate seminars in areas of interests.

Salary is competitive with institutions of equal stature. Rank will depend on the candidates' qualifications and experience.

Candidates should submit curriculum vitae, four letters of reference, copies of recent publications, and a statement of research interests and future research plans to:

**Professor Auke Tellegen**  
Chair, Search Committee on  
Behavior Genetics  
Department of Psychology  
N218 Elliott Hall  
University of Minnesota  
Minneapolis, Minnesota 55455

Applications must be received by 1 February 1985.

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

## CONGRESSIONAL SCIENCE AND ENGINEERING FELLOWSHIPS

### Applications Invited

The American Association for the Advancement of Science (AAAS) invites applications for two 1-year Congressional Science and Engineering Fellowships it will offer for the period beginning 1 September 1985. The fellowship program provides an opportunity for accomplished and societally aware postdoctoral to mid-career scientists and engineers to participate in and contribute to the public policy-making processes within the Congress for approximately 1 year. Fellows work as special legislative assistants within the congressional staff system.

Persons may apply from any physical, biological, or behavioral science or any field of engineering. The term "science" is used broadly to include the system sciences, public health, and other technical professions. In addition to the fellowships awarded by the AAAS, about 25 others are given by other participating professional societies. The AAAS runs a year-long educational program for the set of Congressional Science and Engineering Fellows. Addresses of all participating societies are available from the address listed below.

The 1985-1986 AAAS Congressional Science and Engineering Fellows will receive a stipend of \$25,200; an additional \$1,500 is available for relocation expenses and travel in connection with the program.

In order to obtain detailed information on the program and specific application requirements write:

**Congressional Science and Engineering Fellow Program**  
American Association for the Advancement of Science  
1776 Massachusetts Avenue, NW  
Washington, D.C. 20036

The deadline for application is 1 February 1985. The award will be announced around 1 May 1985.

## SCIENCE, ENGINEERING, AND DIPLOMACY FELLOWSHIP

### Applications Invited

The American Association for the Advancement of Science (AAAS), in cooperation with the Agency for International Development (AID) and the Department of State (STATE), is seeking applicants for two or more Science, Engineering, and Diplomacy Fellowships. Fellows will spend 1 year, beginning 1 September 1985, working either in the Bureau of Oceans and International Environmental and Scientific Affairs of the Department of State or in one of the bureaus of the Agency for International Development. Other assignments may also be possible.

Prospective fellows must demonstrate exceptional competence in some area of science or engineering, be flexible, have some experience and/or a strong interest in applying knowledge toward the solution of problems in the area of foreign affairs, and have a Ph.D. or equivalent in years of experience. Awardees will work on scientific and technical subjects in international affairs: foreign policy for STATE and international development for AID. In general, individuals are urged to apply from any area of physical, biological, behavioral, and social science and engineering and whose experience and training is applicable to any one of the following areas: Food and agriculture; health and population; nuclear nonproliferation; scientific exchange; forestry, natural resources and ecology; oceans and fisheries; communications; national security; and nutrition among others.

The fellows will serve a 1-year appointment at a salary consistent with education level and experience, if possible, but not exceeding, in the case of STATE, the GS-12 level (beginning at \$31,600). A security clearance process will be initiated after selection. The clearance must be obtained before a selectee can begin work in the State Department or AID.

Deadline for receipt of application is 15 February 1985. For more information and application details write:

**Science, Engineering and Diplomacy Fellows Program**  
American Association for the Advancement of Science  
1776 Massachusetts Avenue, NW  
Washington, D.C. 20036

## POSITIONS OPEN

### FACULTY POSITION UNIVERSITY OF WISCONSIN-MADISON ENTOMOLOGY

The Department of Entomology, University of Wisconsin-Madison, is accepting applications to fill a full-time, tenure-track research/teaching/extension position, available 1 July 1985. Ph.D. required with a major emphasis in entomology and forestry and a broad background in biological sciences. Field experience preferred but not mandatory. Successful candidate will be responsible for: developing and conducting ecologically sound management programs for insect pests of forests, plantations, and woodlots; participation in team-teaching a forest protection course required of forestry majors; graduate student training; and participation in extension programs in forestry. These activities would be developed and carried out in cooperation with colleagues in entomology and in related departments, and in state and federal agencies as well as with county personnel and foresters. Submit application materials by 1 March 1985, including a detailed résumé, official transcripts, and publication list. Three letters of reference should also be sent to: Dr. J. A. Wyman, Chairman, Department of Entomology, University of Wisconsin-Madison, 237 Russell Laboratories, Madison, Wis. 53706.

*An Equal Opportunity/Affirmative Action Employer*

### FACULTY POSITION IN BIOLOGY THE UNIVERSITY OF MICHIGAN

**This supersedes an earlier announcement of this position.** The Museum of Zoology and Division of Biological Sciences of The University of Michigan invite applications for a joint tenure-track appointment as an assistant curator of birds or mollusks and assistant professor of biological sciences, beginning as early as 1 July 1985. The appointee must have a Ph.D. prior to beginning duties, a demonstrated commitment to research in systematic and evolutionary studies of birds or mollusks and to biological instruction, and the training to serve as a curator of a major ornithological or malacological research collection. Applications are particularly sought from qualified individuals working in ecological genetics, molecular systematics, behavior, functional morphology, or developmental biology within a systematic context. Three letters of recommendation, curriculum vitae, and copies of publications should be sent before 15 February 1985 to: Chairman, Search Committee, Museum of Zoology, University of Michigan, Ann Arbor, Michigan 48109. *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.*

**UNIVERSITY OF SOUTH CAROLINA—FACULTY POSITION IN COASTAL PROCESSES/COASTAL GEOLOGY.** The Geology Department of the University of South Carolina anticipates a tenure-track faculty position in coastal processes/coastal geology at the assistant professor level to begin in August 1985. The successful candidate is expected to develop a strong research program with external funding, supervise graduate students, and teach graduate and undergraduate courses. The deadline for receipt of applications is 15 February 1985. Submit letter of application, curriculum vitae, statement of research interests, and names of three references to: Dr. Robert Thunell, Department of Geology, University of South Carolina, Columbia, S.C. 29208. *The University of South Carolina is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION/MARINE FISHERY BIOLOGIST

Applications invited for anticipated tenure-track assistant professor position beginning September 1985. Scientists in any area of fish/fisheries biology strongly encouraged to apply but those whose background includes experience in quantitative (population dynamics), early life history, or estuarine fisheries problems are especially of interest. Candidates should have Ph.D., published record of research achievement, capability to attract extramural funding, and the ability to interact with diverse, interdisciplinary faculty in the coastal marine sciences. Successful candidate will be expected to teach courses in his/her specialty and to establish an active independent research program. Application deadline: 15 February 1985. Send curriculum vitae, statement of research interests, and have three letters of reference forwarded to: David O. Conover, Search Committee Chairman, Marine Sciences Research Center, State University of New York (SUNY) at Stony Brook, Stony Brook, N.Y. 11794.

*SUNY, Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK Number 324A-84.*

## POSITIONS OPEN

### FACULTY POSITION IN IMMUNOLOGY—MICROBIOLOGY

The Department of Veterinary Science, North Dakota State University, invites applications for a position at the level of assistant/associate professor in basic immunology/microbiology. This is a 12-month, tenure-track position that will be filled 1 July 1985. Applicants must have a Ph.D. degree. A D.V.M./Ph.D. is desirable. The successful applicant must have demonstrated research productivity, preferably in molecular immunology and/or microbiology and be interested in conducting research in animal diseases important to North Dakota and the region. This is an excellent opportunity for an immunologist/microbiologist to become involved with the Land Grant tradition in research with good base technical and operations support available. The successful candidate will show evidence of present/future research productivity and must be competitive for extramural funding as the research program grows. Send curriculum vitae, summaries of present and proposed research, and names of three people who may be contacted for reference by 1 March 1985 to: Dr. A. D. Alstad, Chairman, Search Committee, Department of Veterinary Science, North Dakota State University, Fargo, North Dakota 58105. *North Dakota State University is an Equal Opportunity Employer.*

### FACULTY POSITION IN OCCUPATIONAL/ ENVIRONMENTAL HEALTH POLICY

Applications are invited for appointment as assistant professor of occupational/environmental health policy in the School of Public Health, University of California, Berkeley, beginning fall 1985. Responsibilities include teaching (master's and doctoral) and research in public policy issues relevant to occupational and environmental health, including supervision of doctoral dissertation research. Appointee will also be expected to contribute to collaborative programs of the Northern California Occupational Health Center. Qualifications include doctoral degree in law, economics, political science, public health, public policy, or other field relevant to foregoing responsibilities, and potential for achievement and productivity in research. Salary negotiable within assistant professor series. Initial application deadline is 15 March 1985, although search may continue until suitable candidate is found. Send curriculum vitae and names of references to: Dr. Richard Scheffler, School of Public Health, University of California, Berkeley, Calif. 94720. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION PRINCIPLES OF CHEMICAL MEASUREMENTS

Applications are sought from individuals with diverse backgrounds who are interested in advancing the science and technology of chemical separations and measurements. The areas of interest are exemplified by, but not limited to, the following fields:

**Surface phenomena, sensor development, quantitative aspects of molecular biology, biomedical sciences, geochemistry, materials science, and polymers**

The appointment will be made at the assistant or associate professor level in analytical chemistry. Please contact: V. J. Shiner, Jr., Chairman, Department of Chemistry, Indiana University, Bloomington, Indiana 47405. Deadline for Applications is 31 January 1985. *An Affirmative Action/Equal Opportunity Employer.*

### HISTOLOGIST/ICHTHYOLOGIST/ ELECTRON MICROSCOPIST

The Department of Life Sciences of Eastern New Mexico University seeks a person for a tenure-track position in fall 1985. This person must demonstrate excellent teaching ability and a commitment to research. Teaching responsibilities include histology, microtechnique, electron microscopy, ichthyology, and general biology. The successful applicant will also become curator of fishes and will be expected to carry on a research program in ichthyology and/or histology. Salary competitive and rank commensurate with qualifications. Send curriculum vitae, a statement of future research plans, and four letters of evaluation by 1 February 1985 to: Dr. Gary S. Pfaffenberger, Chair, Search Committee, Department of Life Sciences, Eastern New Mexico University, Portales, New Mexico 88130. *Eastern New Mexico University is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.*

## POSITIONS OPEN

**FACULTY POSITIONS IN MATERNAL AND CHILD HEALTH** (genetic counseling): Applications for two positions (assistant/associate/full professor) are being accepted until 1 February 1985, for appointment in the School of Public Health, University of California, Berkeley, effective 1 July 1985 (fall semester). Responsibilities include teaching and research in genetic counseling. The appointees will be expected to contribute to the research program of the Department of Social and Administrative Health Sciences. Qualifications include an M.D. degree and Board-certification in an appropriate specialty or an earned doctorate in genetics or counseling and additional training or experience in the other area. A full position description is available upon request. Send curriculum vitae, selected publications, names of references, and a statement indicating how you match the specifications for the specific position you wish to apply for to: Chair, Search Committee, Genetic Counseling, 508 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.

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

### FACULTY POSITIONS

The Department of Biochemistry, Microbiology, Molecular and Cell Biology of the Pennsylvania State University invites applications for several junior and senior tenure-track positions. Renewed commitments from the University to expand our department and form a Biotechnology Institute provide exciting and challenging opportunities for creative research at Penn State. Candidates should have postdoctoral experience and will be expected to develop timely and competitive research programs. Outstanding individuals who will use molecular approaches for the study of genetic, regulatory, and structural relationships in microbial, animal, and plant systems are sought. A wide variety of interactions with our large and diversified research faculty are possible in many areas. We provide excellent physical facilities, competitive salary and benefits, and a stimulating research environment. Applications should consist of curriculum vitae, copies of recent publications, a brief but detailed description of research goals and three references from whom we may request letters. Applications will be received until 15 March 1985, or until the positions are filled thereafter. Submit applications to: Dr. Jean E. Brenchley, Head, Department of Biochemistry, Microbiology, Molecular and Cell Biology, 108B Alt-house Laboratory, Penn State University, University Park, Pa. 16802.

*An Affirmative Action/Equal Opportunity Employer*

### FOOD BIOTECHNOLOGIST

Faculty position in the Department of Food Science and Nutrition, University of Minnesota, St. Paul. Assistant professor, research and teaching, tenure-track, academic year appointment, competitive starting salary, attractive group of fringe benefits including full and reduced pay leave plans as well as medical, insurance, and retirement plans. Successful appointee to establish strong research program on use of molecular genetics and recombinant DNA techniques for improving microbial strains for food processing or for detection of microcomponents of food or food ingredients, to complement and diversify substantial biotechnology work already in progress in department. Teach undergraduate course in microbiology, develop graduate course in food biotechnology. Collaborate with colleagues in department in research and teaching. Requires Ph.D. in food science, microbiology, genetics or biochemistry with specialization in microbiology, molecular cloning, and recombinant DNA techniques. Apply by 1 March 1985. Send detailed résumé and names and addresses of at least three references, to chairman of search committee: Dr. S. R. Tatini, Department of Food Science and Nutrition, 1334 Eckles Avenue, St. Paul, Minn. 55108. *The University of Minnesota is an Equal Opportunity Educator and Employer, and specifically invites and encourages applications from women and minorities.*

**FOOD SCIENTIST** to do original research in the area of molds and mycotoxins. Will study effects of antifungal agents on mold growth and microtoxin production. Ph.D. in food science and technology with areas of specialization in mycology and mycotoxins. Knowledge of methods of analysis, mold identification and classification, and operation of standard scientific instruments such as HPLC. Must have some publications in referred journals; \$1250 per month. Send résumés to: Robert Powell, Nebraska Department of Labor, P.O. Box 94600, State House Station, Lincoln, Nebraska 68509.



## POSITIONS OPEN

**FACULTY POSITION—GENETICS.** Tenure-track position starting fall 1985. Ph.D. required, target level—assistant professor; university/college teaching experience and/or postdoctoral experience preferred. The successful candidate will be expected to teach courses in genetics and general biology, and develop an active research program. Send curriculum vitae, transcripts, a brief statement of teaching philosophy and research interests, and three letters of recommendation by 15 February 1985 to: **Dr. Carl Train, Department of Biology, Southeast Missouri State University, Cape Girardeau, Mo. 63701.**

*An Equal Opportunity/Affirmative Action Employer, M/F.*

**FACULTY POSITION,** Harvard Medical School, Beth Israel Hospital, for Ph.D. with background in molecular genetics or molecular pharmacology, whose broad interests are in mutagenesis, gene rearrangement, and DNA repair. Apply or inquire to: **Dr. Lowell Schnipper, Beth Israel Hospital-Harvard Medical School, 330 Brookline Avenue, Boston, Mass. 02215.** *The Beth Israel Hospital is an Equal Opportunity Employer.*

### FOOD SCIENCE FACULTY POSITION

Assistant, associate, or full professor. Tenure-track, full-time, 9- or 12-month position includes teaching undergraduate food preparation, experimental foods or other courses, and graduate courses. Other responsibilities include directing research, advising students, and serving on committees. Ph.D. in foods, food science, or related area required; research and university teaching experience desired. Specialization in food carbohydrates preferred. Application deadline is 15 February 1985, or until position is filled. Apply to: **Dr. Jane Love, Food and Nutrition Department, 111 MacKay Hall, Iowa State University, Ames, Iowa 50011.**

### McGILL UNIVERSITY

The Department of Microbiology and Immunology is seeking to fill three positions with highly qualified individuals whose research interests are in the general areas of molecular immunology, bacterial physiology, or molecular biology. Applicants must possess a Ph.D. or equivalent degrees. All positions are tenure track at a level commensurate with qualification and professional experience. *In accordance with Canadian immigration regulations, this advertisement is primarily directed towards Canadian citizens and permanent residents of Canada.* Positions are tenable after 1 September 1985. Applicants are invited to send an updated and complete curriculum vitae and a brief outline of proposed research, together with the names and addresses of three references to:

**Dr. R. A. Murgita, Chairman**  
Department of Microbiology and Immunology  
McGill University  
3775 University Street  
Montréal, Quebec, Canada H3A 2B4

**MOLECULAR BIOLOGIST:** The School of Veterinary Medicine, Auburn University, invites applications for a position of molecular biologist or molecular microbiologist. Minimum requirements are a Ph.D., D.V.M., or M.D. and completion of a postdoctoral program in a reputable molecular biology laboratory or equivalent research experience. The candidate's research capabilities should be supported by publications in respected journals. Experience with recombinant DNA and monoclonal technology is desirable. Responsibilities include development of a research program in molecular biology develop and teach a graduate level course in molecular biology and advise graduate students. Salary commensurate with qualifications and experience. Closing date is 15 February 1985, or until a suitable candidate is identified. Send applications, including résumé and three references, to: **Dr. S. D. Beckett, Office of Research, School of Veterinary Medicine, Auburn University, Auburn, Alabama 36849.** *An Equal Opportunity Employer.*

### PHOSPHOINOSITIDES IN PHOTORECEPTORS

Postdoctoral positions are available in a laboratory studying transduction in photoreceptors. In particular, the involvement of phosphoinositides is being investigated [for one example, *Nature* 311, 160 (1984)]. Available 1 January 1985 or later. Salary commensurate with experience. Applicants with experience in: (i) **phospholipid biochemistry** or (ii) **single cell electrophysiology** are invited to send curriculum vitae and the names of three references to: **Professor Joel E. Brown, Department of Ophthalmology, Box 8096, Washington University School of Medicine, 660 South Euclid, St. Louis, Mo. 63110.**

# CIBA-GEIGY BIOTECHNOLOGY

## Senior Scientists-Tissue Culture

CIBA-GEIGY's Agricultural Division is offering challenging opportunities for Senior Scientists in Plant Tissue Culture.

The Biotechnology Research Unit has just moved to its new research facility located in the stimulating environment of Research Triangle Park, North Carolina. For our program on plant genetic engineering and crop improvement, we seek the cooperation of experienced and innovative tissue culture scientists. These positions require a PhD and applicants should have a strong background of plant physiology, cell biology, genetics or biochemistry, along with several years of research experience (at least 2 years postdoctoral) in plant tissue culture technologies, preferably with crop plants.

In addition to an attractive salary and excellent benefits, CIBA-GEIGY offers the opportunity to join an energetic interdisciplinary research team. Interested individuals are asked to forward their curriculum vitae and other pertinent information in confidence to:

**Dr. Mary-Dell Chilton**  
CIBA-GEIGY Biotechnology Research  
Post Office Box 12257  
Research Triangle Park, NC 27709  
USA

*An equal opportunity employer m/f/h/v.*

**Progress Through Innovation**

# CIBA-GEIGY

## DRUG METABOLISM UNUSUAL OPPORTUNITY FOR A SCIENTIST AT BRISTOL-MYERS

### OPPORTUNITY

You'll be part of the Central Nervous System support group of our Metabolism and Pharmacokinetics Department designing, carrying out, and interpreting data from pre-clinical drug metabolism studies. This will include development of analytical methods, development of protocols to determine bioavailability and pharmacokinetics, and investigation of drug biotransformation. You should have a PhD with research in a field related to Drug Metabolism, experience with RIA and HPLC techniques, and experience in the use of animal models. Post doctoral experience is desirable, but not required.

### INNOVATION

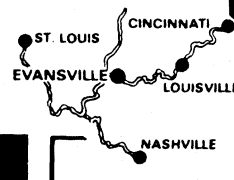
Bristol-Myers, a world-wide leader in research and development, has a strong heritage of accomplishments and a strong future. Our uninterrupted growth is the direct result of our innovation. Our operating style encourages personal creativity and contribution and we're thoroughly professional.

### LOCATION

This unit of Bristol-Myers is located at Mead Johnson in Evansville, Indiana, a community of beautiful residential areas, outstanding recreational opportunities, exceptional education and cultural facilities, and more. Best of all, Evansville couples the advantages of southern economy with the changing beauty of four-season living.

To investigate these reasons for joining Bristol-Myers Research is to discover a wealth of others: Excellent salaries, superb benefits including paid relocation, and real growth, both personal and professional. Discover us! When it comes to your career, no one can offer more!

Send resume in confidence to: Employment Department 6L29, Bristol-Myers Research Recruitment, Mead Johnson & Company, Evansville, IN 47721.



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

## POSITIONS OPEN

### INVERTEBRATE ZOOLOGIST

**ASSISTANT PROFESSOR:** Tenure-track position available 1 July 1985. The Biology Department at Hamilton College seeks an invertebrate zoologist with a specialty other than ecology to complement existing faculty. The successful candidate will teach principles of biology for nonmajors and in alternating years courses in invertebrate biology and areas of specialty. Candidates should have postdoctoral experience with a demonstrated research accomplishment, a strong interest in liberal arts education, and an active research program involving students. Applications should be received by 21 January 1985 and include curriculum vitae, transcripts, and the names of three references. Send materials to: **Professor Tom Brady, Chairman, Biology Department, Hamilton College, Clinton, N.Y. 13323.**

*Hamilton College is an Equal Opportunity Employer. Women and members of minority groups are strongly encouraged to apply.*

### JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE IMMUNOCHEMIST Allergy Research

Applications are invited from persons skilled in protein purification and analysis, who are interested in structure-function relationships pertaining to immunochemical and immunogenetic studies of human immune response to allergens. Knowledge of recombinant DNA technology is an advantage. Relevant postdoctoral training and publications essential. Applicants should have demonstrated a flair for innovative, independent research. Faculty position (junior level) and salary negotiable. Applications (including curriculum vitae and names of three referees) to: **Dr. David G. Marsh, Johns Hopkins University School of Medicine, at the Good Samaritan Hospital, Baltimore, Md. 21239. Affirmative Action/Equal Opportunity Employer.**

### MICROBIOLOGIST/IMMUNOLOGIST

Assistant professor of biology, tenure-track, fall 1985. Ph.D. required; postdoctoral research, publications, and teaching experience desirable. Responsibilities include: commitment to quality teaching in introductory biology, undergraduate and graduate courses in microbiology, immunology, and specialty; development of research program in specialty actively involving M.S. thesis students. Preference given to candidates with research experience in cellular/molecular immunology.

Curriculum vitae, brief statements of present and future research interests, teaching experience, and at least three letters of recommendation should be sent to: **Dr. Anthony Gaudin, Chair, Biology Department, California State University, Northridge, 18111 Nordhoff Street, Northridge, Calif. 91330. The University is an Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.**

**NEUROBIOLOGIST.** The Department of Physiology and Biophysics, University of Washington, invites applications for a tenure-track assistant professorship. We are seeking an individual with expertise in the autonomic nervous system and research interests in neural development and/or synaptic mechanisms. In addition to establishing an independent research program, the individual will be expected to teach and participate in our graduate student and postdoctoral training programs. Applicants should submit curriculum vitae, a statement of research interests, and the names of three references before 31 January 1985 to: **Marc D. Binder, Chair of Search Committee, Department of Physiology and Biophysics, SJ-40, University of Washington School of Medicine, Seattle, Wash. 98195. Equal Opportunity/Affirmative Action Employer.**

### PALEONTOLOGIST/COLLECTION MANAGER

Burke Memorial Museum at the University of Washington seeks paleontologist to curate and manage large paleontology collections. Manager will be responsible for development and use of invertebrate paleontology collections; opportunities for fieldwork and research also available. Minimum qualification: Ph.D. with specialization in paleontology; knowledge and experience with museum curatorial methods and procedures; record of published research in area of specialization. Some experience with microcomputer systems desirable. Submit résumé and names and addresses of three references no later than 1 March 1985 to: **Director, Burke Museum, DB-10, University of Washington, Seattle, Wash. 98195. The University of Washington is an Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### MAGNETIC RESONANCE SENIOR FACULTY POSITION

The Magnetic Resonance Center at Wright State University School of Medicine and the Charles F. Kettering Memorial Hospital are seeking a senior faculty member who is expert in **MAGNETIC RESONANCE**, and whose research is applicable to biological and biomedical systems. Applicants must have a Ph.D. degree in an appropriate discipline and must have established a vigorous, independent research program involving the use of in vivo or in vitro NMR. The successful applicant will be expected to provide leadership for the Center in research activities, both in a personally directed program and in collaboration with scientists from diverse disciplines. He or she will have the opportunity to participate in the training of graduate students, and will be appointed to the faculty of an appropriate department at Wright State University and its School of Medicine. Rank and salary will depend on qualifications and are negotiable. The faculty appointment is expected to be made at a senior level.

The Magnetic Resonance Center currently has a whole animal spectrometer/imager with a 40-cm bore 2.3T magnet, a 9-cm bore 360-MHz spectrometer equipped for solution and solid-state spectroscopy, and a human whole body imager with a 1.5T magnet.

Please send current curriculum vitae and the names and addresses of three references to: **Dr. Robert A. Weisman, Chairman, Magnetic Resonance Center Search Committee, Department of Biological Chemistry, Wright State University, Dayton, Ohio 45345.** To be considered, applications must be postmarked prior to 15 March 1985. *Wright State University is an Equal Opportunity/Affirmative Action Employer.*

### NMR SPECTROSCOPIST

The Magnetic Resonance Center at Wright State University School of Medicine and the Charles F. Kettering Memorial Hospital are seeking an **NMR SPECTROSCOPIST** with experience in vivo or in vitro NMR. The applicant must have an academic degree in chemistry, physics, electrical engineering, or a suitably related field; and extensive experience in the operation and maintenance of NMR spectrometers. Applicants with a Ph.D. are preferred.

The successful applicant will be responsible for the operation and maintenance of an in vivo and a high resolution NMR spectrometer, and will be expected to collaborate with Magnetic Resonance Center users on the design, performance, and interpretation of NMR experiments. Development of an independent research program with appointment to the faculty of the Wright State University School of Medicine is negotiable.

The Magnetic Resonance Center currently has a whole animal spectrometer/imager with a 40-cm bore 2.3T magnet, a 9-cm bore 360-MHz spectrometer equipped for solution and solid-state spectroscopy, and a human body imager with a 1.5T magnet.

Please send current curriculum vitae and the names and addresses of three references to: **Dr. Robert A. Weisman, Chairman, Magnetic Resonance Center Search Committee, Department of Biological Chemistry, Wright State University, Dayton, Ohio 45345.** To be considered, applications must be postmarked prior to 15 March 1985. *Wright State University is an Equal Opportunity/Affirmative Action Employer.*

### NEUROPSYCHOLOGIST/NEUROBIOLOGIST

The Department of Psychology of the University of Illinois at Champaign-Urbana invites applications for a tenure-track academic position for August 1985. Candidates should have a Ph.D. and/or an M.D. degree and have postdoctoral research experience. Candidates will be considered whose research program focuses on the biological bases of human behavior. This designation includes a wide variety of subdisciplines, for example, neuropsychology, psychophysiology, psychopharmacology, genetics, and so forth. Preference will be given to individuals with an interest in clinical training or biopsychologists with patient-oriented interests. Rank and salary are open. For full consideration, applications should be received by 15 February 1985. Applicants should send complete curriculum vitae, representative reprints, three letters of recommendation, and a brief statement of research interests to: **Dr. Edward J. Roy, Department of Psychology, 603 East Daniel Street, Champaign, Illinois 61820; telephone: 217-333-3375. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

The Department of Chemistry of The University of Chicago invites applications for the position of **LECTURER IN ORGANIC CHEMISTRY**. This non-tenure-track academic position will carry responsibility for the management and supervision of the undergraduate organic chemistry laboratories. It is expected that this person (with a Ph.D. in organic chemistry) will take an active part in the design of laboratory curriculum and experiments.

Qualified applicants should submit curriculum vitae and publication list and should arrange for two or more letters of recommendation to be sent to:

**Professor Donald H. Levy  
Chairman, Department of Chemistry  
The University of Chicago  
5735 South Ellis Avenue  
Chicago, Illinois 60637**

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### National Institutes of Health National Institute of Neurological and Communicative Disorders and Stroke (NINCDS) Immunochemist

An **IMMUNOCHEMIST POSTDOCTORAL RESEARCH** position is available to study the membrane and cytoplasmic antigens of glioma-derived tissue culture lines. The presence of the antigenic proteins, their induction by differentiation agents, and their characterization are to be studied. A background in tissue culture and cell biology, as well as gel electrophoresis, is desirable.

Collaboration with other immunologists, molecular biologists, and tumor biochemists is essential. Immunochemistry laboratory facilities are available, as well as microcinematography, fluorescent microscopy, quantitative morphometrics, image analysis and processing, and SEM-EDX (microanalysis), to study the antigenic characteristics of brain tumors.

This position will be in the Surgical Neurology Branch, NINCDS, National Institutes for Health, Public Health Service. Salary range for this staff fellowship position is \$17,000 to \$35,467 per year, commensurate with experience. Send curriculum vitae and three references to: **Janet E. Folin, Personnel Department, NINCDS, National Institutes of Health, 9000 Rockville Pike, Building 31, Room 8A23, Bethesda, Md. 20205. NIH is an Equal Opportunity Employer.** (For more information, telephone: Ms. Folin on 301-496-6334.)

### MOLECULAR BIOLOGIST/ CHEMICAL CARCINOGENESIS

The La Jolla Cancer Research Foundation is a growing research institute located in the Torrey Pines Research Park, in close proximity to the Salk Institute, Scripps Clinic and Research Foundation, and the University of California, San Diego. The Foundation has been designated as a Cancer Center by the National Cancer Institute. The research of the Foundation's staff utilizes molecular, biochemical, and cellular approaches and focuses on the relationships of cancer and mammalian development.

The Foundation seeks an independently funded scientist working on the mechanism of chemical carcinogenesis at the molecular level to fill a position equivalent to assistant or associate professor. Preference will be given to candidates with strong background in molecular biology, especially with experience in chromatin structure and regulation of gene expression.

Send applications to: **Scientific Director, La Jolla Cancer Research Foundation, 10901 North Torrey Pines Road, La Jolla, Calif. 92037.**

**OPHTHALMOLOGIST.** Full-time faculty position available; instructor, assistant, associate, or full professor. Opportunity for clinical and laboratory research, resident and student teaching, and clinical practice. Completion of glaucoma fellowship desirable. Department of Ophthalmology, The University of Michigan and Affiliated Hospitals. Contact: **Paul R. Lichter, M.D., Chairman, W. K. Kellogg Eye Center, Box 004, University Hospitals, Ann Arbor, Mich. 48109. The University of Michigan is a nondiscriminatory, Affirmative Action Employer.**

**POSTDOCTORATE FELLOW**—The Mount Sinai Medical Center. One to 2-year appointment involves the use of mass spectrometry (high resolution magnetic and quadrupole) to study antineoplastic agents, infections in cancer patients, and biomarkers. Please call or send résumé to: **Dr. John Roboz, THE MOUNT SINAI MEDICAL CENTER, One Gustave L. Levy Place, New York, N.Y. 10029. Telephone: 212-650-7382. An Equal Opportunity Employer.**

## CURRICULUM VITAE BANK

### School of Medicine The Oregon Health Sciences University

The School of Medicine at the Oregon Health Sciences University is creating a candidate pool for faculty positions which may become available within the next year. It will update the pool annually.

The purpose of the candidate pool is to develop a comprehensive list of highly qualified candidates in the medical sciences. Women and minorities are especially encouraged to submit their curricula vitae.

The Oregon Health Sciences University School of Medicine is an accredited medical school with several hundred students in a variety of health related professional training programs. It is an integral part of an academic health center comprising also schools of dentistry and nursing, and the University Hospital. The Portland Veterans Administration Medical Center, the Shriners Hospital for Crippled Children and the Oregon Regional Primate Research Center are also closely affiliated with the University.

Interested individuals should send their vitae to the Office of Affirmative Action, The Oregon Health Sciences University, 3181 S.W. Sam Jackson Park Road, Portland, Oregon 97201



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## PRESIDENT

### Worcester Polytechnic Institute

Worcester Polytechnic Institute seeks a new President who will lead the institution in continuing its tradition of educational excellence and innovation in undergraduate programs in engineering, science, and management while guiding research and graduate education programs toward national prominence. The position calls for academic sensitivity, a sound sense of educational and professional quality, and a commitment to institutional development.

The individual who assumes the presidency must offer vigorous institutional leadership that will balance continuing excellence in the unique WPI undergraduate curricula with new vitality for graduate programs. The President must function constructively with all of WPI's constituencies: trustees, alumni, faculty, staff, and students. The President must take an active role in development efforts and be a prominent advocate for the College. There is a sound base for growth in active faculty research programs and in the College's ties with a broad range of industry in the stimulating technological environment of Massachusetts.

The nation's third oldest engineering college, WPI, is located in Worcester, Massachusetts. It offers degrees through the Ph.D. with an undergraduate enrollment of 2,500, full-time faculty of 200, and a graduate enrollment of 250 full-time and 1000 part-time students.

WPI's tradition of excellence as an undergraduate institution, its aspirations for the future, and its manageable size offer an unusual opportunity for educational leadership.

Candidates should possess either an Engineering or Science background, preferably with a Ph.D. Nominations, inquiries, and applications with resumes may be directed to:

**R. E. Bolz, Secretary**  
Presidential Search Committee  
Worcester Polytechnic Institute  
100 Institute Road  
Worcester, Massachusetts 01609  
no later than January 25, 1985.

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Would you like to live in the Boston/Cambridge area and work adjacent to the MIT Campus? American Science and Engineering, Inc., is seeking individuals who enjoy physics and who wish to work in an industrial R&D environment. AS&E has been a world leader in the development of high resolution X-ray and gamma-ray imaging systems for space research, medical diagnostics, security inspection and defense related non-destructive testing for twenty-five years. AS&E scientists have made significant contributions to X-ray astronomy and solar physics including the discovery of the first non-solar celestial X-ray source. Our inventions have included the first practical X-ray telescope, the fourth generation CT scanner and the first film-safe X-ray inspection systems. Openings exist in the areas of diagnostic radiology and industrial computed tomography.

## ■ Experimental Physicists

There are opportunities to participate in the development of new techniques and applications of computer tomography and digital, diagnostic radiology. Research and development efforts involve new concepts in X-ray detection, X-ray scanning and new biomedical and industrial applications.

Candidates will work with other physicists and our EE, ME and software personnel. We require physicists with strong aptitude in supervising and carrying out an entire experiment involving electronics, mechanics, physics and software.

These positions require a Ph.D. in experimental physics, medical physics or observational astronomy and a background in photon detection or particle counting. Familiarity with computer controlled instrumentation or digital image processing would be helpful. Post-doctoral experience is desirable, but not required for these positions. The ability to write coherent scientific papers and technical proposals is mandatory.

**Qualified candidates should call or send resume to John Loughlin, 1-800-225-1608.**

AS&E is an Affirmative Action/Equal Opportunity Employer located in Cambridge, Massachusetts.

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Fort Washington  
Cambridge, Massachusetts 02139

## POSITIONS OPEN

### NEUROSCIENCE RESEARCH GROUPS

The University of Alberta intends to establish a neuroscience research group, or groups, funded through the Alberta Heritage Foundation for Medical Research. Proposals are invited from productive investigators wishing to join and/or direct these groups. Proposals will be considered in any area of neuroscience, but there is particular interest locally in the areas of rehabilitation neuroscience, developmental neurobiology, and Alzheimer's disease. Basic science approaches which will lead to important clinical applications are particularly desirable. University rank, departmental affiliation, and salary will be appropriate to the experience of successful candidates. Applicants should apply, enclosing curriculum vitae, a short statement of proposed research, and the names of three referees, by 31 January 1985 to:

Associate Dean of Medicine, Research  
Faculty of Medicine  
University of Alberta  
13-117 Clinical Sciences Building  
Edmonton, Alberta, Canada, T6G 2G3

*The University of Alberta is an Equal Opportunity Employer, but in accordance with Canadian immigration requirements priority will be given to Canadian citizens and permanent residents of Canada.*

**PHARMACOLOGIST.** Unusual and challenging opportunity for an individual with broad interests and experience in detection and evaluation of medicinally active compounds offered by well-known service organization whose pharmacology laboratory employing nearly 100 scientists and technicians is located near Taipei, Taiwan. Position requires permanent residence in Taiwan and ability to speak fluent Mandarin Chinese. Please contact: Dr. M. H. Pindell, President, Panlabs, Inc., P.O. Box P, Sunapee, N.H. 03782.

**PHYSICAL SCIENCE.** Tenure-track position teaching interdisciplinary physical science courses, which include components of physics, astronomy, earth sciences, and chemistry to nonscience majors. Requirements: terminal degree (Ph.D. preferred); evidence of academic breadth. Submit letter of intent, curriculum vitae, all transcripts, and letters of reference by 16 February 1985 to: Dr. B. R. MacLaren, Chair, Natural Science Department, Eastern Kentucky University, Richmond, Ky. 40475. *Equal Opportunity/Affirmative Action Employer.*

**TWO PHYSIOLOGY POSITIONS.** Tenure-track positions beginning fall 1985. Target level: assistant professor. The **HUMAN PHYSIOLOGY** position includes teaching a human physiology course. Preference will be given to an individual with a cell physiology emphasis. The **COMPARATIVE PHYSIOLOGY** position includes teaching vertebrate physiology. Preference will be given to an individual with an organismal physiology emphasis. Both positions require participation in a nonmajors human anatomy and physiology course and the development of an active research program. Ph.D. required; university/college teaching experience and/or postdoctoral experience preferred. Send curriculum vitae, transcripts, three letters of reference, and brief statements of research interests and teaching philosophy by 1 March 1985 to: Dr. Carl Train, Department of Biology, Southeast Missouri State University, Cape Girardeau, Mo. 63701. *An Equal Opportunity/Affirmative Action Employer, M/F.*

**POSTDOCTORATE** in human Sleep/Aging Research Program, 1 to 2 years, working on computer analysis of EEG waveforms during waking and sleep in normal controls and in Alzheimer's dementia. Send curriculum vitae and two letters of recommendation to: Dr. Pat Prinz, University of Washington, RP-10, Seattle, Wash. 98195.

**POSTDOCTORAL POSITION** available on or before 1 July 1985 to participate in the molecular cloning and study of the bovine interleukin 2 (IL-2) and other lymphokine genes. The research will involve recombinant DNA and sequencing technologies as well as investigations of the activity of transfected genes in bovine lymphoid cells using appropriate expression vectors. Experience in any of these areas of research or related fields of biochemistry or immunology preferred but not required. The granting agency requires U.S. citizenship or permanent resident status. Send curriculum vitae to: N. S. Magnuson, Department of Veterinary Microbiology and Pathology, Washington State University, Pullman, Wash. 99164. *Washington State University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### PARASITOLOGIST

Biology Department seeks an individual with research strength in helminth taxonomy/systematics to fill an assistant professor, tenure-track position beginning August 1985. Applicants are expected to possess a strong background in parasitology and their work should address questions that deal with coevolutionary or genetic aspects of the host-parasite relationship in a modern context. Ph.D. required, must have demonstrated excellence in both teaching and research; postdoctoral experience desirable. Teaching responsibilities to include undergraduate courses in invertebrate zoology, helminthology or parasite ecology, and an advanced course in the area of specialty. Successful candidate is expected to obtain extramural funding, interact with a diverse group of active individuals in related disciplines, and maintain a vigorous research program. Submit letter describing research and teaching interests and professional goals, current résumé, and reprints/preprints of publications, and have three letters of reference sent separately by 22 February 1985 to: Chairman, Parasitology Search Committee, Department of Biology, University of New Mexico, Albuquerque, N.M. 87131. *Affirmative Action/Equal Opportunity Employer.*

### PLANT ECOLOGIST

Biology Department seeks an individual whose research involves some aspect of physiological plant ecology or plant population biology to fill an assistant or associate professor, tenure-track position beginning August 1985. Applicants expected to possess strong background in botanical sciences. Teaching responsibilities to include undergraduate courses in general plant ecology, field ecology emphasizing concepts and techniques, and an advanced course in the area of specialty. Ph.D. required, must have demonstrated excellence in both teaching and research; postdoctoral experience desirable. Successful candidate expected to obtain extramural funding, interact with a diverse group of active individuals in related disciplines, and maintain a vigorous research program preferably utilizing southwestern resources. Salary will be commensurate with experience. Submit letter describing research and teaching interests and professional goals, current résumé, and reprints/preprints of publications, and have three letters of reference sent separately by 15 February 1985 to: Dr. Rex G. Cates, Chairman, Plant Ecologist Search Committee, Department of Biology, University of New Mexico, Albuquerque, N.M. 87131. *Affirmative Action/Equal Opportunity Employer.*

The **DEPARTMENT OF PHARMACOLOGY AND INTERDISCIPLINARY TOXICOLOGY** at the University of Arkansas for Medical Sciences anticipates the availability of one or two positions in fall 1985. Applicants with research interests in CNS or cardiovascular pharmacology or toxicology, with an academic background suitable for appointment at the level of instructor or assistant professor are preferred, although applicants at other levels with other interests will be considered. Applicants should send curriculum vitae which includes the names and addresses of three references to: D. E. McMillan, Chairman, Department of Pharmacology and Interdisciplinary Toxicology, University of Arkansas for Medical Sciences, 4301 West Markham Street, Little Rock, Arkansas 72205.

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### PLASMA PHYSICS POSITIONS

The **Plasma Physics Group** at the University of California, Irvine, has two openings. An assistant specialist for scientific programming; B.A. degree in physics required and knowledge of FORTRAN. An assistant research physicist (experimentalist) to work on intense ion beams; Ph.D. or equivalent required. Send résumé to: Professor N. Rostoker, Physics Department, University of California, Irvine, Calif. 92717. *An Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL FELLOW.** Available immediately at \$17,000. Research involves the interactions of hepatotoxins with regulation of cytoplasmic calcium in cultured hepatocytes by ATP-dependent pumps. Recent Ph.D. experienced with ion pumps, phosphoproteins, phospholipids, or cell culture may send résumé with names and telephone numbers of three references to: Dr. Leon Moore, Ph.D., Department of Pharmacology, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Md. 20814-4799. *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### TWO POSITIONS: PLANT PHYSIOLOGIST AND QUANTITATIVE GENETICIST

The Department of Botany and Plant Sciences, University of California, Riverside, announces two positions, available 1 July 1985, to be filled at the assistant professor level. Each is an 11-month, tenure-track appointment in the College of Natural and Agricultural Sciences and in the Agricultural Experiment Station. Ph.D. required, and postdoctoral experience is desirable. **PLANT PHYSIOLOGIST.** Successful candidate will be expected to develop a research program which stresses the use of molecular approaches (which may include those common to the field of molecular biology) to investigate the regulation of plant development by endogenous plant growth regulators or by light quality and/or duration. He/she will be expected to teach a graduate course in the control of plant growth and development which emphasizes the chemistry and physiology of plant growth-regulating substances. **QUANTITATIVE GENETICIST.** Successful candidate will be expected to develop a vigorous, innovative, independent research program, with a commitment to basic research in quantitative genetics and biometrics, and their applications to plant improvement. He/she will be expected to contribute to the departmental undergraduate teaching program and offer an advanced course in quantitative genetics in relation to plant improvement.

Send curriculum vitae and official transcripts and arrange to have at least three letters of recommendation sent to: Search Committee Chairman (indicate position), Department of Botany and Plant Sciences, University of California, Riverside, Calif. 92521. Application deadline is 15 February 1985, or later if a suitable candidate has not been selected.

*An Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.*

## POSTDOCTORAL ASSOCIATE

The Department of Nutrition and Food Science is seeking an individual to develop an enzymatic reactor for the extracorporeal treatment of severe jaundice.

Ph.D. degree with background in biochemistry, chemistry, chemical engineering, biology, toxicology or biomedical engineering desirable.

Send resume to: Prof. Robert S. Langer, c/o MIT, Bldg. E25-342, 77 Massachusetts Ave., Cambridge, MA 02139. Refer to Job #C84-130.

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# MIT

**POSTDOCTORAL FELLOW** in neurophysiology to study the mechanisms of pheromone perception by Lepidoptera as a model system. Experiments will use analytic chemical and electrophysiological techniques with computer analysis. Research will be cooperative between University of Maryland Baltimore County and the Organic Chemical Synthesis Laboratory of the U.S. Department of Agriculture. Send curriculum vitae and names of two references to: F. E. Hanson, Department of Biological Sciences, University of Maryland Baltimore County, Catonsville, Maryland 21228. *Minorities and women are encouraged to apply.*

**POSTDOCTORAL FELLOW IN POPULATION BIOLOGY, UNIVERSITY OF BASEL (SWITZERLAND).** To collaborate half-time on the theory for the evolution of phenotypic plasticity in life-history traits; half-time for independent research. Background in optimization theory, optimal control theory desirable. Ph.D. in suitable discipline (biology, math, physics, engineering) required. Salary approximately 50,000 Swiss francs per year. The position lasts 3 years, can start after 1 January 1985. The population biology group in Basel works on life-history evolution, quantitative genetics, and behavioural ecology. Curriculum vitae and two letters of recommendation should be sent to: Professor S. C. Stearns, Zoologisches Institut, Rheinsprung 9, CH-4051 Basel, Switzerland.



## DIRECTEUR INRS-OCÉANOLOGIE RIMOUSKI, QUÉBEC

The Institut National de la Recherche Scientifique (an integral part of the Université du Québec) is looking actively for a Director for its oceanographic research centre located in Rimouski, Quebec, Canada.

At the centre, scientists are active in the fields of physical oceanography, marine geology, marine biology and aquaculture, and work together as multidisciplinary teams.

The director coordinates the various research programmes and their teaching components. He is also responsible of the general administration of the centre, including the Laboratoire océanologique de Rimouski.

The candidate must have a doctoral degree (or the equivalent in terms of work experience) in a discipline related to the general field of oceanography. Research management experience and a working knowledge of french are highly desirable.

The position should be filled no later than July 1st 1985.

Application should be submitted with curriculum vitae to:

**Directeur des ressources humaines  
Institut National de la Recherche  
Scientifique  
Case postale 7500, Sainte-Foy  
Québec G1V 4C7  
Telephone: (418) 657-2560, ext. 2410**

 Université du Québec  
Institut national de la recherche  
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## X-RAY ASTRONOMER

Your broad background and experience in X-ray astronomy and space hardware will be truly challenged as you let your imagination soar to new dimensions when you join the Space Astronomy Group at the Lockheed Palo Alto Research Laboratory.

As an X-ray astronomer, your primary duty will be to provide scientific support and consultation. You will also have time available for research in high-energy astrophysics on topics of your choice. And, as a member of the Lockheed Space Sciences Laboratory, you will have the opportunity of participating in its ongoing programs in high-energy astrophysics and solar physics.

This is the opportunity you've been waiting for. Send your resume to Lockheed Missiles & Space Company, Professional Employment, Dept. 584CA16, P.O. Box 3504, Sunnyvale, CA 94088-3504. Lockheed is an equal opportunity, affirmative action employer. U.S. citizenship is required.

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## NIOSH ANNOUNCES RESEARCH AWARDS FOR PH.D. & M.D. SCIENTISTS!



The National Institute for Occupational Safety and Health announces outstanding opportunities for research in

- applied psychology • ergonomics
- bioacoustics • health physics

The National Research Council in cooperation with the National Institute for Occupational Safety and Health will offer competitive research awards in 1985 for independent scientific research. Recipients will be free to work on problems of their own choice as guest investigators at NIOSH. This program is open to experienced senior scientists only. Stipend is determined on an individual basis and will be comparable to that received in similar government and academic positions. Relocation reimbursement and funds for professional travel on tenure are available, and a health insurance program is offered.

For further information and application materials please write to:

**Dr. Janet C. Haartz**  
NIOSH/Division of Biomedical and  
Behavioral Sciences  
4676 Columbia Parkway  
Cincinnati, Ohio 45226

**1985 Deadlines for application are  
January 15, April 15 and August 15.**

## Ph.D. Scientist Microbiology

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We currently have an opening in our Laboratory Services Group for a Ph.D. in Microbiology to join our management staff. No actual experience is necessary; however, pharmaceutical background would be a plus. Strong communication skills, both oral and written, are prerequisite. You will be responsible for staff management plus developing and providing a wide variety of sophisticated analytical services.

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## POSITIONS OPEN

**POSTDOCTORAL POSITION** available to study the genetic and biochemical basis of cell differentiation of skeletal muscle tissue. Background in recombinant DNA techniques or biochemistry preferred. Send letter of application, résumé, and names of references to:

Dr. Frank E. Stockdale  
Stanford School of Medicine, M-211  
Stanford, California 94305

## POSTDOCTORAL POSITIONS IN MOLECULAR AND/OR MEMBRANE BIOLOGY AT WAYNE STATE UNIVERSITY

Postdoctoral research positions are available for study with members of the Department of Biological Sciences who have active, funded programs conducted in well-equipped facilities. Initial appointments will have a stipend of approximately \$17,000 plus fringe benefits. Applicants should submit curriculum vitae, a statement of research interests, and should arrange to have appraisals sent by three referees.

Applications and requests for information concerning faculty research programs should be addressed to:

Dr. D. Carl Freeman  
Department of Biological Sciences  
Wayne State University  
Detroit, Mich. 48202

**POSTDOCTORAL POSITION—DNA ENZYMOLOGY, MOLECULAR BIOLOGY.** Postdoctoral positions are available in several project areas in a broad-based, problem-oriented laboratory that is studying the enzymology of DNA replication, the regulation of the expression of replication genes, and the structure of replicative complexes. Techniques include most of those used in modern biochemistry, biophysics, and molecular biology, including protein purification and characterization and recombinant DNA and monoclonal antibody technology. Recent Ph.D.'s are preferred. Applicants should send their curriculum vitae, a brief description of their immediate and long-term research goals, and the names of three references to: Dr. Charles McHenry, Professor, Department of Biochemistry, Biophysics and Genetics, University of Colorado School of Medicine, 4200 East Ninth Avenue, Denver, Colorado 80262. *Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** is available to work on molecular aspects of calcium channel regulation. Both biochemical and biophysical aspects of channel regulation will be investigated. Broad interests and a strong electrophysiological/biophysical background are essential. Send curriculum vitae and references to: Dr. R. J. Miller, Department of Pharmacology, University of Chicago, 947 East 58 Street, Chicago, Ill. 60637, or telephone: 312-962-9336.

## POSTDOCTORAL POSITION BROWN UNIVERSITY

Position available for individual interested in areas of gene structure and regulation, protein structure-function, protein-nucleic acid interactions or molecular mechanisms of genetic recombination. Previous experience with, or desire to learn, DNA cloning, nucleic acid biochemistry, genetics, or in vitros systems. Please send résumé with desired starting date and list of three references to: Arthur Landy, Division of Biology and Medicine, Brown University, Providence, R.I. 02912. *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL RESEARCH ASSOCIATE.** Chemical synthesis of nucleosides and nucleotides in area of crown ether chemistry and polycyclic bridged ring oxygen heterocycles involving paper electrophoresis and chromatography, ion-exchange chromatography, normal and reversed-phase liquid chromatography, including TLC, HPLC, MPLC, flash chromatography, centrifugal silica TLC, microscale organic reactions, and use of radiolabeled isotopes. Requirements: Ph.D. in synthetic organic chemistry and background in synthesis and properties of nitroaldols,  $\alpha$ -diols,  $\alpha,\beta$  unsaturated carboxylic esters, epoxides, and amides in separation of complex mixtures and determination and interpretation of UV, IR, highfield NMR, and mass spectra. Forty hours per week; \$18,000 per year. Send curriculum vitae to: Philadelphia Job Bank Office, 444 North Third Street, Third Floor, Philadelphia, Pa. 19123. Job Order Number 3706572.

## POSITIONS OPEN

### POSTDOCTORAL FELLOW

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

**POSTDOCTORAL POSITION** available through July 1985. Studies on voltage sensitive calcium channels and the role of calcium in cell regulation and gene expression. Experience in monoclonal antibody production, immunology, and biochemistry desirable. Salary, 5 years, around \$17,000; flexibility for highly experienced and independent candidates. Send curriculum vitae and references:

Dr. Smilowitz  
Department of Pharmacology  
University of Connecticut Health Center  
Farmington, Conn. 06032  
*An Affirmative Action/Equal Opportunity Employer, M/W/H*

**POSTDOCTORAL POSITION** available April 1985 to study regulation by hormones and  $Ca^{2+}$  of expression of pituitary genes transfected into cultured cells; or candidate regulatory proteins binding specifically to these genes. Applicants should have a solid background in biochemistry; recombinant DNA experience preferred. Send curriculum vitae and names of three references to: Dr. F. Carter Bancroft, Sloan-Kettering Institute, 1275 York Avenue, New York, N.Y. 10021.

**POSTDOCTORAL POSITION** to study genomic changes in human cancers [for example *Nature* 309, 176; *Science* 220, 1175; *Nature* 301, 89]. Available spring or summer 1985; salary: \$19,000 plus. Send curriculum vitae and telephone numbers of two references to: Dr. B. Vogelstein, Johns Hopkins University School of Medicine, Oncology 1-127, Baltimore Md. 21205. *Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available to investigate the nitrogen-fixing *Rhizobium*-soybean symbiosis. Opportunity to join a large, well-funded, and energetic group. Work in the laboratory is directed toward diverse areas such as the cell surface chemistry, molecular biology, genetics, ecology, and physiology of the *Rhizobium* infection process. Submit letter of interest, curriculum vitae, and at least three letters of reference to: Dr. Gary Stacey, Department of Microbiology, University of Tennessee, Knoxville, Tenn. 37996-0845. *An Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** to study influence of glutathione on hepatic drug metabolism. Intact cell approach utilizing perfused livers and animals emphasized to complement in vitro studies. Jointly supervised by Drs. D. M. Ziegler (Austin) and R. F. Burk (San Antonio). Inquiries to: Dr. R. F. Burk, Department of Medicine, University of Texas Health Science Center, San Antonio, Texas 78284.

### POSTDOCTORAL POSITIONS

Positions are available for studying the biology and virulence of *Trichomonas vaginalis*. Emphasis for this research model deals with modern biological-immunological-biochemical approaches to study the pathogenic human trichomonads. Salary is negotiable. Interested candidates should contact: John F. Alderete, Ph.D., Department of Microbiology, The University of Texas Health Science Center, San Antonio, Texas 78284 and should forward curriculum vitae, three letters of recommendation, and any publications. *An Equal Opportunity/Affirmative Action Employer.*

**A POSTDOCTORAL POSITION** is available January 1985 to study the structure, function, and biogenesis of proteins that catalyze the intracellular and extracellular transfer of lipids. Experience in molecular genetics is preferred. Exceptional environment featuring productive interactions between basic research and clinical scientists. Send curriculum vitae, a brief description of research experience and future interests, and the names of three references to: Dr. J. Harmony, Department of Anatomy and Cell Biology (ML 521), College of Medicine, 231 Bethesda Avenue, University of Cincinnati, Cincinnati, Ohio 45267-0521. *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### POSTDOCTORAL ASSOCIATE

The Department of Nutrition and Food Science is seeking an individual to work on a project which will focus on isolation and characterization of DNA from *Flavobacterium heparinum* for production of heparinase to neutralize heparin in blood.

Qualifications: Ph.D. in Molecular Biology with experience in techniques utilized in the cloning and expression of genes from prokaryotes.

Please send 2 copies of resume to:  
Dr. Charles Cooney, Bldg. 66-470,  
77 Massachusetts Ave., Cambridge,  
MA 02139. Refer to Job #C84-129.

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**POSTDOCTORAL POSITION.** A position is available immediately to work with Drs. J. Hay, K. V. Holmes, and J. J. McGowan on the molecular biology and pathogenesis of bunyaviruses. A Ph.D. or equivalent degree in microbiology, biochemistry, molecular biology, or related discipline required. Send résumé and the names of three references to: Dr. John Hay, Department of Microbiology, c/o Personnel Division, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Md. 20814-4799. Curriculum vitae will not be returned. *Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available immediately to study interaction of chemical carcinogens with DNA by a variety of approaches ranging from NMR and HPLC to tissue culture and immunology. Experience in one or more of the above techniques required. Send curriculum vitae to: Dr. Alan M. Jeffrey, Columbia University/Institute of Cancer Research, 701 West 168 Street, New York, N.Y. 10032. *Columbia University is an Equal Opportunity Employer.*

**POSTDOCTORAL RESEARCH APPOINTMENTS** are occasionally available with individual faculty members of the Departments of Chemistry and of Chemical Engineering at the University of California, Berkeley, Berkeley, Calif. 94720. Appointments are normally made for a year, but with the possibility of renewal for a second. Highly qualified persons are invited to apply for positions to be assumed at the time of, or shortly after, the completion of doctoral studies. A single application should be addressed to the faculty member with whom the applicant prefers to be associated. (In the event that no position is available with that faculty member, the application will be circulated to other faculty members with similar research interests.) Arrangements should be made for one confidential letter of reference to be sent by the person best able to judge the applicant's research achievements and potential. Applications should include a résumé, a brief statement of research experience, interests, and goals, and the names and addresses of two additional references. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL RESEARCH IN HYPERTENSION:** Applicants must have either a Ph.D., M.D., D.V.M., or comparable degrees and be citizens or permanent residents of the United States. Applications for the following positions, starting 1 July 1985 or thereafter, are solicited.

- 1) Studies on prostaglandins, renin-aldosterone, or atrial natriuretic factor in human and experimental hypertension.
  - 2) Physiological regulation of Na, K-ATPase.
  - 3) Mechanism of action of antihypertensive drugs.
  - 4) Epithelial transport physiology.
  - 5) Molecular biology of genetic hypertension.
- Send curriculum vitae and copies of undergraduate and graduate transcripts to: Dr. John Rapp, Department of Medicine, Medical College of Ohio, C.S. 10008, Toledo, Ohio 43699. *An Equal Opportunity Employer, M/F.*

## ANNOUNCING CAROLINA WORKSHOPS

1 9 FOR 8 5

Presented by: The Program in Molecular Biology & Biotechnology, University of North Carolina at Chapel Hill

May 19-30

**Chemical Synthesis of DNA Oligonucleotides**

June 8-22

**Molecular Genetics: Chromosome Structure and Function**

To apply: Send a brief description of your research interests and the relevance of our course to your plans. Send a brief resume of your training, institutional affiliation and contact telephone number to Dr. John Newbold, Workshop Coordinator, Program in Molecular Biology & Biotechnology, University of North Carolina at Chapel Hill, 4th Floor Swing Building, 217H, Chapel Hill, N.C. 27514.

**Application Deadline:**  
**March 4, 1985**

**Acceptance notification by:**  
**April 1, 1985**



**Program in  
Molecular  
Biology &  
Biotechnology**

University of North Carolina at Chapel Hill

**Thanks—**

**The Carolina Workshops commends the teaching faculty who conducted programs in the 1984 session:**

Alan Bankier, MRC, Cambridge, UK  
Howard Coyer, Pharmacia, P-L  
Marshall Edgell, UNC  
Mary Harper, NIH  
Clyde Hutchison, UNC  
Daniel Loeb, UNC  
Susan Lord, UNC  
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## Research Biotechnologists

Air Products and Chemicals, Inc., is an international Fortune 250 firm with diversified operations in industrial gases, chemicals, process equipment and engineering and construction services, headquartered in the attractive Lehigh Valley area of eastern Pennsylvania. We currently have two excellent career opportunities for experienced Research Biotechnologists.

## Research Biochemist

The successful candidate will conduct research in the identification, purification and testing of commercially-interesting biomaterials from microbial sources. Experience in determining the structure and function of microbial biopolymers, such as protein or carbohydrate polymers is a must. Background in microbial metabolism and enzyme structure/function/kinetics is a plus. Understanding of recombinant DNA technology is essential. PhD in Biochemistry with 2-4 years of relevant experience is required.

## Research Bioengineer

The successful candidate will conduct process design and scale-up for biotechnology projects. Experience is required in fermentor design, bioreactor design, bioprocess scale-up, bioprocess economic evaluation, separation and purification systems for biomolecules, and fermentor and bioreactor operating conditions. Knowledge of enzyme immobilization techniques and recombinant DNA technology is a plus. A PhD in Bioengineering or Bio-Chemical Engineering with 2-4 years relevant experience is required.

Interested, qualified persons should forward a detailed resume, with salary history, in confidence, to: Mr. J. Freund, Employee Relations Department, AIR PRODUCTS, INC., P.O. Box 538, Allentown, PA 18105. (No Phone Inquiries Please). Equal opportunity employer m/f.

**AIR  
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## Manager Quality Assurance- Microbial Media

**Madison, Wisconsin**

Gibco Laboratories, Life Technologies, Inc., is a major supplier of tissue culture and microbial media products to clinical and research laboratories worldwide. Gibco has an immediate opening at their Madison, Wisconsin plant for a Microbiologist with industrial management experience, specifically in the areas of QA and QC. Additionally, industrial experience with regulatory agencies required. Requirements: a Ph.D. in Microbiology, knowledge of culture media formations and preparations and their applications in the clinical research and industrial settings. Expertise in clinical microbiology required. A limited amount of travel is necessary. Send resume and salary requirements, to: **Joyce Coleman, Manager, Human Resources, LIFE TECHNOLOGIES INC., 7139 Pine Street, Chagrin Falls, Ohio 44022.** Equal opportunity employer m/f.



LIFE TECHNOLOGIES, INC.

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS—CELL BIOLOGY

Two NIH grant-funded postdoctoral positions are available in the laboratory of Thoru Pederson for studies of eukaryotic RNA processing, with particular emphasis on small nuclear RNA's and ribonucleoprotein complexes. Individuals with backgrounds in nuclear structure and/or nucleic acid-protein interactions would be ideal candidates. Send curriculum vitae, research synopsis, and names of references to: **Dr. Thoru Pederson, c/o Personnel Office, Worcester Foundation for Experimental Biology, Shrewsbury, Mass. 01545.** Deadline is 1 February 1985.

*An Equal Opportunity/Affirmative Action Employer*

**POSTDOCTORAL RESEARCH ASSOCIATE** to study the role of DNA replication in gene expression, origins of replication in mammalian DNA, and effects of oncogene rearrangements on replication. Projects also include studies on replication of genes coding for immunoglobulins and histocompatibility antigens. Challenging opportunity for training in recombinant DNA techniques. Send curriculum vitae and two references to: **Dr. Carl Schildkraut, Department of Cell Biology, Albert Einstein College of Medicine, Bronx, New York 10461.**

**POSTDOCTORAL RESEARCH ASSOCIATE.** Position available immediately in ongoing research program to study cellular and genomic factors associated with development of invasiveness and malignancy in SV40 virus-produced intracranial tumors. Candidates should have strong background in cell and molecular biology, including recombinant DNA techniques. Send curriculum vitae and three letters of reference to: **Dr. John Walsh, Division of Neurosurgery, University of Kentucky Medical Center, Lexington, Ky. 40563.** *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL OR RESEARCH ASSOCIATE** position available immediately for 2 to 3 years, to participate in studies involving molecular cloning and expression of viral genes. Should have previous experience with recombinant DNA techniques. Salary negotiable, depending on experience. Send curriculum vitae and three letters of reference to: **Dr. Richard W. Compans, Department of Microbiology, University of Alabama at Birmingham, Birmingham, Ala. 35294.** *An Affirmative Action/Equal Opportunity Employer.*

### POSTDOCTORAL RESEARCH FELLOW UNIVERSITY OF MICHIGAN

New position available immediately to study the role of pulsatile signaling by growth factors in early mouse development using a computer-controlled, unique micropipet system. Extracellular products released by the embryos will be studied by 2D gels, and the embryos will be examined morphologically and with probes for oncogenes. The position requires a Ph.D. or equivalent in developmental biology, biochemistry, or physiology. Must be U.S. citizen/immigrant visa and USRA-eligible. Send curriculum vitae with names of three references to: **Dr. A. Rees Midgley or Dr. Robert P. Erickson, Developmental and Reproductive Biology, 300 North Ingalls Building, Room 1101, Ann Arbor, Mich. 48109.**

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

Position available for **POSTGRADUATE RESEARCH BIOCHEMIST** or **ASSISTANT RESEARCH BIOCHEMIST** (dependent on experience). Scientific requirements: Experience in molecular cloning, PBR-322 and  $\lambda$ gt techniques, RNA, DNA methodologies (hybridizations, electrophoresis and sequencing of nucleic acids, enzymology, immunology of RNA and DNA, protein synthesis, cell cultures, and microbiological techniques). Apply to: **Dr. Ernest Kun, 1315-Moffitt Hospital, University of California, San Francisco, Calif. 94143.** *An Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSISTANT**—Immediate opening, to perform research in the area of cell biology and lipid biochemistry. B.S. or M.S. in biology or biochemistry with some background in lipid and organic chemistry. Experience desired in cell culture, enzyme assays, thin-layer chromatography, radiolabeling techniques, and general lipid methodology. Send curriculum vitae and letters of reference to: **The Personnel Manager, W. ALTON JONES CELL SCIENCE CENTER, 10 Old Barn Road, Lake Placid, New York 12946.** Refer to Job CA-103.

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## POSITIONS OPEN

### PhD or MD Researchers

PhD or MD researchers for staff or post-doctoral positions. Newly-equipped laboratories, animal care facility, and excellent ancillary support services. Areas of emphasis include: *cardiovascular disease, pulmonary disease, transplantation, immunology, neurological disorders and oncology.* • Pleasant working conditions in a hospital environment with academic affiliations in southeast Pennsylvania. Competitive salary and fringe benefits. Send resumes, with evidence of grant competitiveness, to:

### Box 1, SCIENCE

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### POSTDOCTORAL POSITIONS

The following positions are available immediately:

1) **Cell biology of adrenal cells.** Project offers experience in cell biology and biochemistry. Studies include: cytoskeleton, membrane events, intracellular transport of cholesterol, synthesis of proteins, post-translational modification,  $Ca^{2+}$ , phosphoinositides.

2) **Cell biology of sertoli cells.** Studies include: extracellular matrix, cell polarity, cell recognition, morphology, cytoskeleton, cell membranes.

Both projects supported by NIH research grants. Submit curriculum vitae, names of three references, and statement of professional and research goals to: **Dr. Peter F. Hall, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545.**

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

**POSTDOCTORAL STUDIES** of structure-function relationships in mammalian CNS. Experiments include intracellular recording/injection of HRP with subsequent LM/EM analysis of cellular and presynaptic morphology. Other LM/EM axonal transport experiments investigate the origins of synaptic inputs to neurons. Ph.D. required. Start summer 1985; Salary: \$15,000. Send curriculum vitae, three letters of reference, and sample publications to: **Dr. D. L. Oliver, Department of Anatomy, University of Connecticut Health Center, Farmington, Conn. 06032.**

*An Affirmative Action/Equal Opportunity Employer, M/W/H*

**RESEARCH ASSISTANT PROFESSOR** position available January 1985, to study Ca-ATPase using NMR, ESR, and lanthanide ion spectroscopy. Requires Ph.D. in chemistry or biochemistry and at least 3 years of relevant postdoctoral experience. Contact: **Dr. Howard Kutchai, Box 449, University of Virginia Medical Center, Charlottesville, Va. 22908.** *An Affirmative Action/Equal Opportunity Employer.*

### RESEARCH ASSOCIATE/ASSISTANT PROFESSOR

Ph.D. in pharmacology or physiology with experience in cellular cardiac electrophysiological techniques: conventional and ion-selective microelectrodes; multicellular and/or single cell voltage-clamp or patch clamp; to join active research group based in the Departments of Medicine and Pharmacology. Whole animal experience also desirable. Current interests: Electrophysiology and pharmacology of human heart and of animal models of ischemia/disease, including mechanisms of dysrhythmias and of antiarrhythmic drugs. Two positions. Responsibilities include supervision of laboratory personnel. Postdoctoral experience and publications required. Salary and position commensurate with qualifications. Tenure-track appointment possible (assistant professor). Please send statement of research interests, curriculum vitae, and references to: **Donald H. Singer, M.D., c/o Reingold ECG Center, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, Ill. 60611.**

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH OPPORTUNITIES

Postdoctoral and research associate openings are available for a biochemist, immunochemist, and/or molecular biologist to study cell culture models for colon cancer and metastasis. Applicants should have interest or experience in protein purification, monoclonal antibody development, or recombinant DNA technology. Qualified candidates should submit curriculum vitae and three letters of reference to: **Dr. Michael G. Brattain, Bristol-Baylor Laboratory, Baylor College of Medicine, One Baylor Plaza, Houston, Texas 77030.** *An Equal Opportunity/Affirmative Action Employer.* Please respond by 25 January 1985.

**RESEARCH ASSOCIATES (TWO)** in membrane biochemistry and biophysics to participate in independent and team research in the study of lateral diffusion of macromolecules related to catalytic events in native and reconstituted membranes. Approaches include fluorescence recovery after photobleaching, resonance energy transfer, differential scanning calorimetry, and freeze fracture EM. Background in membrane biochemistry and/or biophysics preferred; practical experience in electron microscopy helpful. M.D. or Ph.D. *Women and minorities are encouraged to voluntarily identify themselves.* Send curriculum vitae and names of references to: **Dr. C. R. Hackenbrock, Laboratories for Cell Biology, Department of Anatomy, University of North Carolina—Chapel Hill, 108 Swing Building, Chapel Hill, N.C. 27514,** by 28 February 1985. *Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSOCIATE—PLANT/CROP MODELER.** Position involves development and validation of plant growth simulation models in air pollution studies. Ph.D. required. Send application, résumé, transcripts, and three letters of recommendation to: **Dr. James F. Reynolds, Department of Botany and Biomathematics Program, Box 7612, North Carolina State University, Raleigh, N.C. 27695-7612; telephone: 919-737-2727 or -2222.** Salary commensurate with experience. Position available immediately.

**RESEARCH GENETICIST (Insects)** at GS-11 (\$25,489) or GS-12 (\$30,549); grade based on qualifications. One federal career civil service position with U.S. Department of Agriculture—Agricultural Research Service, Insect Attractants, Behavior and Basic Biology Research Laboratory, Gainesville, Florida. As research geneticist, he/she will conduct basic research on genes that control spermatogenesis in insects and establish appropriate genomic and DNA libraries using molecular cloning techniques. Applicants should have experience with the application of molecular biology to insect systems. Ph.D. or equivalent experience required. Candidate must be U.S. citizen. *Equal Opportunity Employer.* Applications must be received by 31 January 1985. For application forms and procedures, contact: **Special Examining Unit, Agricultural Research Service, U.S. Department of Agriculture, Room 409, Building 003, BARC-West, Beltsville, Md. 20705; telephone: 301-344-4178.**

**SCIENCE, TECHNOLOGY, AND SOCIETY: Visiting assistant professor.** One-year appointment with the possibility of renewal for a maximum of 3 years. This is a non-tenure-track position. Ph.D. in the life sciences required. Teaching experience and commitment to liberal arts education essential. Responsibilities include teaching undergraduate courses to non-majors on social and ethical questions related to science, technology, and society, and interest in teaching senior seminar. Send letter of application, description of research interests, curriculum vitae, and names of three references to: **Dr. Glenn J. Kist, Chairman, Science and Humanities Staff, College of Liberal Arts, Rochester Institute of Technology (RIT), 1 Lomb Memorial Drive, Rochester, New York 14623-0887.** Deadline for receipt of applications is 1 February 1985. *RIT is an Equal Opportunity/Affirmative Action Employer.*

**SENIOR SCIENTIST, TOXICOLOGY DIVISION.** Small, rapidly growing biotechnical research/contract testing company has opening for Ph.D. level scientist. Candidates should have strong background and interest in toxicology/genetics/pharmacology. Position encompasses program development and management, interaction with senior laboratory management, technical staff and clients, and reports to division director. Excellent growth potential, competitive salary, and bonus opportunity. Submit résumé, references, and salary requirements to: **Director of Toxicology, STS Inc., P.O. Box 23568, Rochester, N.Y. 14692.**



## CHEMIST/BIOCHEMIST

We are a leading manufacturer of chemicals for a research community with a challenging opportunity for a qualified Chemist/Biochemist to focus on the research and development in a newly created department.

The background of the qualified candidate must include a PhD and 1-3 years post-doctoral experience in protein and peptide sequencing using state of the art automated equipment. Experience in HPLC, amino acid analysis, analytical instrumentation and drug analysis is desirable. Strong verbal and written skills are essential to be effective in our highly entrepreneurial environment where rewards are based on individual performance.

Salary and benefits are commensurate with experience. Interested applicants should send resume, including salary history and expectations to:

**SIGMA CHEMICAL COMPANY**  
Larry Hummel, PhD  
P.O. Box 14508  
St. Louis, MO 63178

*Equal Opportunity Employer M/F*

## RESEARCH SCIENTISTS

### Wellbore Physics Cambridge

Schlumberger Cambridge Research has recently been created to initiate and conduct research on behalf of the oilfield drilling and production services companies of Schlumberger, long established as one of the foremost names in the world's energy industry.

Located on the outskirts of Cambridge, the newly-established laboratory is centred on a £4 million drilling test facility capable of carrying out full-scale drilling tests under simulated deep-hole conditions; the amenities provided in support of each individual researcher being equally well resourced.

The laboratory carries out both applied and knowledge-based fundamental research relevant to the Company field activities and offers an opportunity for a high level of professional initiative, early involvement in a broad range of advanced, multi-disciplinary research projects - with the publication of results actively encouraged - and attractive prospects for rapid career development within a large technically orientated multinational organisation.

After two years of existence, Schlumberger Cambridge Research is now establishing new research areas which offer outstanding opportunities for dedicated and resourceful young Research Scientists, with post-doctoral experience gained in industry or university.

### Physicochemical Rheology

As a member of the Wellbore Physics Department, you will initiate a programme of research on physicochemical rheology, in particular the factors controlling the rheological properties of particulate suspensions. Then play a leading role in developing and steering the company's complete approach to rheology, at the head of a specialist team. Qualifications: PhD in Physical Chemistry, Physics or Chemical Engineering plus strong research record in physicochemical hydrodynamics or a closely related field. Ref: WBP/1/S.

### Wellbore Filtration

As a member of the Wellbore Physics Department, you will take charge of experimental research on fundamentals of wellbore filtration processes as they occur in oilfield drilling and completion operations, in particular the dynamics of filtration in transverse flows of colloidal fluids at the rock-fluid interface. Qualifications: PhD in Physical Chemistry, Chemical Engineering or Physics, with at least 2 years' post-doctoral research experience, ideally in filtration, physicochemical hydrodynamics or a closely related field of colloid or interface science. Ref: WBP/2/S.

An attractive remuneration package will be negotiated according to experience and an excellent benefits package includes generous expenses for relocation to Cambridge. Applications from overseas researchers are warmly encouraged.

Please forward your c.v. to: Pat Haynes, Personnel Manager, Schlumberger Cambridge Research, P.O. Box 153, Cambridge CB3 0HG, England. Telephone: (0223) 315576.

**Schlumberger**

SCHLUMBERGER CAMBRIDGE RESEARCH

## FULLY ENDOWED CHAired PROFESSORSHIP

Smith College seeks outstanding candidates for a fully endowed, chaired professorship, in Computer Science. Candidates should possess a national research reputation and a strong interest and ability in teaching at an undergraduate liberal arts institution. Applicants will be considered without regard to field. There are excellent research facilities including two Digital Equipment VAX's dedicated to academic use as well as many microcomputers. Smith College is the largest women's college in the country. Our highly motivated students are involved in computing and an ongoing computer science program. Smith is part of an exciting Five-College consortium located in western Massachusetts, but within two hours of Boston and three hours of New York City. Salary, sabbatical policy and benefits, are generous. Candidates should send a c.v. and a list of references by February 15, 1985, to: **Professor Elizabeth Ivey, Chair of Search Committee, College Hall, Smith College, Northampton, Massachusetts 01063.** An equal opportunity employer.

The Lawrence Livermore National Laboratory currently has Postdoctoral Research Staff Member positions available in their Biomedical Sciences Division. Each appointment is for a 2 year term.

## Mutagenesis/DNA Repair

In this position you will perform and publish experimental research dealing with the genetic and biochemical characterization of mutations affecting DNA repair in mammalian cells. Studies may include the isolation and structural determination of human repair genes, analysis of molecular mechanism of sister-chromatid exchange, and elucidation of the pathway of DNA cross-link repair. Successful candidates should possess broad experience in cell culture and DNA repair and/or recombinant DNA techniques. An academic background in molecular biology and biochemistry is desired.

## Monoclonal Antibodies

In this position you will develop monoclonal antibodies to pesticides and carcinogens as well as developing corresponding immunoassays for use in environmental and personnel monitoring. To qualify you will have a recent PhD in Toxicology, Biochemistry, Immunology or equivalent. Additionally, you will possess a strong background in pesticides and/or carcinogens chemistry and analysis. The ability to operate personal computers, EIA and RIA equipment and fluorescence microscopes is also highly desirable.

For consideration, please forward your curriculum vitae to: **Earl G. Morrell, Professional Employment Division, LAWRENCE LIVERMORE NATIONAL LABORATORY, P.O. Box 5510, Dept. KSC-145, Livermore, CA 94550.**

U.S. citizenship is required.

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University of California  
**Lawrence Livermore  
National Laboratory**

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH POSITION

Postdoctoral position available for recent Ph.D. in biochemistry to join active group studying effects of ischemia on the functional and structural relationship of cardiac muscle. The candidate should have research experience in the isolation of cardiac cells and sacrolemma vesicles, in the determination of ligand binding assays, and in the analysis of phospholipid composition. Applicants should have a strong background in cellular biochemistry. The position is available immediately and is renewable for up to 3 years. Salary: \$18,000 per year commensurate with qualifications. Send curriculum vitae and names of three references to: **Dr. Marvin L. Murphy, Division of Cardiology, Department of Medicine, John L. McClellan Memorial Veterans Hospital, 4300 West 7 Street, Little Rock, Ark. 72205.**

### RESEARCH POSITIONS: MICROBIAL PHYSIOLOGY AND GENETICS

The Signal UOP Research Center is seeking several microbiologists to conduct research in our biotechnology programs. This interdisciplinary research area will focus upon core technologies in fermentation biochemistry, industrial enzymology, cell/enzyme immobilization. The working disciplines in biotechnology at Signal UOP include microbial genetics, biochemistry, physical chemistry, catalysis chemistry, and process engineering.

Successful applicants must have a demonstrated ability in microbial physiology and genetics to carry out independent research and will be expected to develop a vigorous research program. Recent graduate and/or postdoctoral training that specifically apply to these areas is essential.

Send curriculum vitae, statement of research, and names of three references to: **Walter R. Bauldrick, Director Employee Relations, or Dr. R. W. Detroy, Associate Director, Biotechnology, Signal UOP Research Center, 50 UOP Plaza, Des Plaines, Ill. 60016-6187.**

**Signal UOP Research Center**

*An Equal Opportunity Employer*

## RESEARCH SCIENTIST

Massachusetts Institute of Technology (MIT), Department of Biology, is seeking an individual to conduct research on the regulation of phosphate metabolism in *Escherichia coli*, including studies of phosphate transport; identification of regulatory genes, their products and functions; cofactors modulating the regulation, accumulation of high energy storage polyphosphates, their structure and metabolism. Must be able to contribute significantly to the design and execution of experiments. Will help advise and direct others in research group. Requires Ph.D. in biology or microbiology with solid background in biochemistry, biochemical engineering, cell and molecular biology, and bacterial genetics. Salary level: \$20,000 per year.

Please submit two copies of résumé to: **Kenneth L. Hewitt, Personnel Officer, Room E19-238, Personnel Office, 77 Massachusetts Avenue, Cambridge, Mass. 02139.**

*MIT is an Equal Opportunity/  
Affirmative Action Employer*

**RESPIRATION MECHANICS/FLUID DYNAMICS**—Staff and postdoctoral positions studying fluid dynamics and gas exchange in airways flows. Advanced degrees in either physiology or engineering. Annual salaries: \$22,000 and up, commensurate with experience. Send résumé to: **Dr. Jeffrey Fredberg, The Biomechanics Institute, 896 Beacon Street, Boston, Mass. 02215.**

### SABBATICAL REPLACEMENT IN BIOLOGY

Organismal biologist with specialization in invertebrate physiology to teach introductory courses in evolution, ecology, and general zoology, and assist in cell biology laboratories. A 1-year position beginning fall 1985. Ph.D. required and college teaching experience preferred. Send dossier to: **Dr. J. J. Jernigan, Acting Dean of Faculty, Austin College, Sherman, Texas 75090. Deadline: 1 March 1985.**

## POSITIONS OPEN

**RESEARCH IN IMMUNOLOGY.** This is an opportunity to participate in broad-based studies of the regulation and sequence of events in B-lymphocyte formation. The emphasis is on resolving populations of B-cell precursors, identifying factors which influence their replication and maturation, and defining cells which contribute to hemopoietic microenvironments. Depending on qualifications, the appointment would be equivalent to a postdoctoral fellowship or entry level staff position. An ideal candidate would hold an M.D. or Ph.D. degree and have completed 1 to 3 years of postdoctoral work in a recognized laboratory. Send letters of inquiry including résumés to: **Dr. Paul W. Kincade, Oklahoma Medical Research Foundation, 825 Northeast 13 Street, Oklahoma City, Okla. 73104. Equal Opportunity/Affirmative Action Employer.**

### STABLE ISOTOPE ECOLOGY OR TERRESTRIAL ECOSYSTEM BIOLOGY

The Ecosystems Center of the Marine Biological Laboratory seeks a **staff scientist** at the assistant scientist level in one of two areas of expertise: (i) the use of stable isotopes in ecology; or (ii) terrestrial ecosystem studies. The stable isotope ecologist would be expected to help the Center build a facility for stable isotope research. The terrestrial ecosystem biologist would be expected to work in the areas of ecosystem productivity and/or element cycling. Applicants should have demonstrated research potential and should be interested in multidisciplinary, collaborative research. Postdoctoral experience is required. Interested applicants should send curriculum vitae, a statement of current and future research interests and names and addresses of three referees to: **Jerry M. Melillo, Chair of the Search Committee, Ecosystems Center, Marine Biological Laboratory, Woods Hole, Mass. 02543. Application deadline is 1 February 1985.**

### THE CLEVELAND CLINIC FOUNDATION DEPARTMENT OF MUSCULOSKELETAL RESEARCH

Applications are invited for the position of **STAFF SCIENTIST** in the newly established Department of Musculoskeletal Research from Electronic Engineers with an interest in the fields of rehabilitation engineering and human performance monitoring. Candidates must have a Ph.D. degree in electronics or electrical engineering and be familiar with microprocessor system based design technology. Experience in the health professions is desirable although not essential. The appointee will be expected to develop a strong research program in microprocessor-based rehabilitation devices and patient monitoring systems. Salary is negotiable and expected to be more than comparable to University scales. Please send, by 4 January 1985, complete curriculum vitae and the names of three referees to: **Dr. M. T. Manley, Chairman, Department of Musculoskeletal Research, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, Ohio 44106. An Equal Opportunity Employer.**

**VISITING SCIENTIST** positions are available for new and established Ph.D.'s and/or M.D.'s in the areas of cell and molecular biology. Some experience in either area is desirable but not essential. Appointments will be made for at least 2 years at an annual salary up to \$25,000, depending on qualifications and experience. Employment will also include liberal fringe benefits. Interested applicants should send curriculum vitae and names of three references to: **Dr. Gordon H. Sato, c/o Personnel Office, W. ALTON JONES CELL SCIENCE CENTER, 10 Old Barn Road, Lake Placid, New York 12946.**

*An Affirmative Action/Equal Opportunity Employer*

The Department of Invertebrate Zoology, National Museum of Natural History (NMNH), Smithsonian Institution, seeks candidates for **ZOOLOGIST, GS-11/12/13** (starting at \$25,489 to \$36,327 per annum), to perform curatorial functions and collections-oriented research in systematic and evolutionary malacology. Candidates will be evaluated according to the quality, breadth, progressiveness, and recency of research accomplishments (publications) and academic study; museum curatorial and field experience; relation of candidate's research to present department collections and research strengths and needs; and the potential for research interaction with other NMNH staff and outside colleagues. Submit by 15 February 1985, SF-171 (Personal Qualifications Statement), curriculum vitae, copies of publications, and statement of long-term research goals to: **Smithsonian Institution, Office of Personnel Administration, 900 Jefferson Drive, SW, Room 1410, Washington, D.C. 20560, Attention: MPA-85-2F. The Smithsonian Institution is an Equal Opportunity Employer.**

## POSITIONS OPEN

**RESEARCH ASSOCIATE IN ORGANIC CHEMISTRY.** Milligram scale synthesis of nitroxides and their applications in biological studies. Job requires a Ph.D. in organic chemistry, synthesis of stable nitroxides, and familiarity with vesicle chemistry. Fluency with ESR, NMR, IR, and UV spectral tools as well as high-pressure liquid chromatography is essential. Job involves some instructional responsibility for undergraduate laboratory students. Salary: \$13,500 to \$15,500 per annum. Send résumé and three letters of recommendation to: **Professor John F. W. Keana, Chemistry Department, University of Oregon, Eugene, Oregon 97403. Closing date: 4 February 1985. An Equal Opportunity/Affirmative Action Employer.**

### ZOOPLANKTON ECOLOGY

Postdoctoral position for studies of population dynamics in Lake Michigan. Limnology or marine background. 24 months to begin 1 March 1985. Send curriculum vitae and names of three references to: **Dr. John Lehman, Division of Biological Sciences, University of Michigan, Ann Arbor, Michigan 48109. The University of Michigan is an nondiscriminatory, Affirmative Action Employer.**

## SCIENTIFIC EXCHANGES

### NAS SCIENTIFIC EXCHANGE PROGRAMS WITH USSR AND EASTERN EUROPE

Applications are invited from American scientists who wish to make professional visits in the U.S.S.R., Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, and Yugoslavia, between January and December 1986. Applicants must be U.S. citizens and have a doctoral degree or comparable research training and experience in the natural, biomedical, or social and behavioral sciences by the time of visit. Deadline for requesting applications is 15 February 1985. Please contact:

**National Academy of Sciences  
Section on USSR and Eastern Europe  
2101 Constitution Avenue, NW  
Washington, D.C. 20418  
Telephone: 202-334-2644**

## FELLOWSHIPS

**PATHOBIOLOGY**—Pre- and postdoctoral fellowships in experimental pathology. Wide range of research programs include cell and molecular biology, carcinogenesis, toxicology, infectious disease, immunopathology, and virology. Please forward inquiries to: **Kenneth B. Adler, Ph.D., Department of Pathology, University of Vermont College of Medicine, Burlington, Vermont 05405.**

### FELLOWSHIPS FOR RESEARCH AND TRAINING IN ECOLOGY UNIVERSITY OF MICHIGAN BIOLOGICAL STATION 19 June to 17 August 1985

Advanced undergraduate or graduate students and researchers with a Ph.D. or equivalent may apply for fellowships in the Naturalist-Ecologist Training Program at the Biological Station in northern Michigan. Participants conduct independent ecological studies and take part in a seminar, which emphasizes research and theory and includes contributions by distinguished ecologists. In addition, students enroll in one course of their choice, while researchers concentrate on their field-based studies. Awards for students cover tuition for the seminar and course, fees, room and board. Researchers receive a stipend, funds for equipment or supplies, fees, room and board, plus an allowance for up to two dependents. For details and an application form, contact: **Dr. Mary J. Whitmore, University of Michigan Biological Station, Pellston, Mich. 49769. Applications must be received by 28 February 1985.**

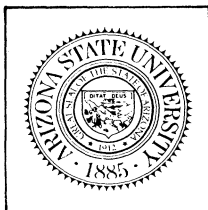
### POSTDOCTORAL FELLOWSHIP IN PHARMACEUTICS

Two departmental positions of 24-month duration each are available immediately for recent doctoral graduates to study pharmacokinetics, drug analysis and metabolism, biopharmaceutics, or drug delivery systems with faculty members of the Department of Pharmaceutics, State University of New York (SUNY) at Buffalo. Apply by 20 January 1985 with curriculum vitae and two letters of reference to: **Dr. H.-L. Fung, Cooke Hall, SUNY, Buffalo, N.Y. 14260; telephone: 716-636-2842.**

*An Equal Opportunity/Affirmative Action Employer*

## CHAIRPERSON DEPARTMENT OF ZOOLOGY ARIZONA STATE UNIVERSITY

Applications are invited from senior faculty for the position of professor and chairperson of the Department of Zoology, Arizona State University. The department consists of 28 faculty, 60 graduate students, and undergraduates with majors in Biology, Zoology, and Wildlife Biology. Strong graduate programs exist in the areas of behavior, ecology, systematics, genetics, cell and developmental biology, and physiology. Applications are sought from individuals who have demonstrated excellence in teaching, scholarly productivity in an active research program, and the ability to provide administrative leadership. The position will be available **1 July 1985**, but this is negotiable. Nominations or letters of application accompanied by a curriculum vitae listing names, addresses, and telephone numbers of five references must be received by **15 February 1985**.



Department of Zoology  
Dr. James P. Collins  
Chairperson Search Committee  
Arizona State University  
Tempe, Arizona 85287  
Telephone: (602) 965-4578

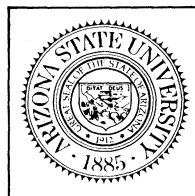
*Arizona State University  
is an Equal Opportunity/Affirmative Action Employer and  
encourages applications from women and members of minority groups.*

## VICE PRESIDENT FOR RESEARCH

Arizona State University invites nominations and applications for a new position, Vice President for Research.

The Vice President will report directly to the President of the University. The successful candidate will be the chief administrative officer responsible for development of policies, procedures and practices to encourage research and creative work and to protect and advance the interests of the University in this area. Nominees and applicants must possess an earned Doctorate and a distinguished record of research or other creative activity. At least five years of administrative experience is required. A detailed position description and other required qualifications are available on request.

The expected starting date is **July 1, 1985**. A letter of application, resume, including the names, addresses and phone numbers of references must be postmarked by **Feb. 1, 1985**. Letters of recommendation should be directed to the committee as soon as possible. Qualified women and minorities are strongly encouraged to apply. Applications, nominations and requests for additional information should be directed to:



Department of Zoology  
K. Church, Chairperson  
Vice Presidential Search Committee  
Arizona State University  
Tempe, Arizona 85287

*Arizona State University is an equal opportunity affirmative action employer.*

## Postdoctoral Scientists/ Tumor Cell Biochemists

The Department of Tumor Biology at Smith Kline & French Laboratories, located in suburban Upper Merion, Pennsylvania, is in search of outstanding individuals to join a multidisciplinary team seeking novel therapeutic agents for the treatment of human colon adenocarcinoma. The successful candidate will join a newly established effort studying the growth regulation of normal and neoplastic human colon epithelial cells.

The successful candidates will investigate:

- The role of transforming growth factors (TGFs) and gastrointestinal peptides in controlling colon epithelial cell proliferation.
- Signal transduction and second messenger mechanisms activated by colon epithelial cell mitogens.
- The expression of cell cycle-specific gene products induced by colon epithelial cell mitogens.
- Characterization of "autocrinological" components synthesized by normal and neoplastic colon epithelial cells.
- The expression in colon epithelial cultures of gene products induced by chemotherapeutic agents, lymphokines and components of the mucosal microenvironment.

Candidates are required to have:

- A Ph.D. in Molecular Biology, Biochemistry or Biology.
- Research experience in the project of interest.
- A growing publication record.
- Clear and concise communication skills.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your CV and names of three references to: Mr. Walter B. Flagg, SmithKline Beckman Corporation, 1560 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

**SK&F**  
A SmithKline Beckman Company

## Biological NMR

The Analytical, Physical, and Structural Chemistry Department of Smith Kline & French Laboratories is seeking a Ph.D. candidate for a position in the Biological NMR Group. Smith Kline & French Laboratories is well equipped with spectrometers and computers for biological NMR research. Projects are currently underway in areas ranging from in vivo spectroscopy of animals to detailed biophysical studies of molecular structure and dynamics. The successful candidate must have experience in modern techniques of NMR spectroscopy and be able to participate in research in the area of high resolution NMR of biopolymers in solution. There will also be opportunities to participate in research in other areas of biological NMR.

Smith, Kline, and French Laboratories will be relocating from Philadelphia to a new state-of-the-art research facility near Valley Forge. In addition to an excellent compensation, benefits, and relocation package, we offer the opportunity for personal and professional growth. Please forward your resume with list of publications to George P. Kissell, Jr., Senior Employment Consultant, Smith Kline & French Laboratories, a division of SmithKline Beckman Corporation, 1552 Spring Garden Street, Philadelphia, Pennsylvania 19101.

We are an Equal Opportunity Employer, M/F/H/V

**SK&F**  
A SmithKline Beckman Company

## FELLOWSHIPS

**DOCTOR OF ARTS IN BIOLOGICAL SCIENCE: FELLOWSHIPS** are available for qualified persons interested in the D.A. degree in biological science. The program stresses preparation for undergraduate teaching at colleges and universities. Applicants should hold a master's degree in some area of biology. Deadline for receipt of application is 1 March 1985. For more information contact: **Chairman, D.A. Committee, Department of Biological Science, Idaho State University, Pocatello, Idaho 83209. An Equal Opportunity Employer.**

### DOCTORAL FELLOWSHIPS IN PLANT BIOTECHNOLOGY

The Graduate Programs in plant breeding, genetics, plant physiology, and biochemistry will award doctoral fellowships for new students interested in training in the application of plant genetics and molecular biology to crop improvement. Funding is provided by the U.S. Department of Agriculture Food and Agricultural Sciences National Needs Program. The stipend for the first year is \$15,000. Residency must begin before 15 September 1985. Successful applicants will be notified by early spring 1985. For program details and application information contact: **Dr. B. G. Gengenbach, Department of Agronomy and Plant Genetics, University of Minnesota, St. Paul, Minn. 55108, telephone: 612-373-1371. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.**

**PREDOCTORAL FELLOWSHIPS IN PHARMACOLOGY.** Qualified applicants interested in graduate studies in pharmacology are invited to apply for available fellowships. Departmental research interests include autonomic pharmacology, cardiovascular pharmacology, drug metabolism, endocrine pharmacology, metabolic regulation, neuropharmacology, and toxicology. Tuition waiver, an annual stipend of \$7300, research supplies, and a professional travel allowance are available to qualified individuals. For information contact: **Dr. Ezio Giacobini, Professor and Chairman, Department of Pharmacology, Southern Illinois University School of Medicine, P.O. Box 3926, Springfield, Ill. 62708. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL FELLOWSHIP** available in the area of mechanistic enzymology. Experience in kinetic (steady-state and stopped-flow) and magnetic resonance techniques preferred. Send résumé to: **Professor Frank M. Raushel, Department of Chemistry, Texas A&M University, College Station, Texas 77843. Texas A&M is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL FELLOWSHIP.** A position is available immediately to study prejunctional cholinergic modulation of acetylcholine release and related regulatory mechanisms of neuromuscular transmission. The study will also involve the electrical characteristics of cholinergic sites in model membrane systems. Favorable consideration will be given to candidates with experience in electrophysiological techniques, model membrane systems, and/or histochemical methods. Interested individuals should send curriculum vitae and three references to: **George G. Bierkamper, Ph.D., Department of Pharmacology, University of Nevada School of Medicine, Reno, Nevada 89557. An Affirmative Action/Equal Opportunity Employer.**

### INSTITUTE OF ECOSYSTEM STUDIES SUMMER RESEARCH FELLOWSHIPS

The Institute of Ecosystem Studies (IES) of the New York Botanical Garden will award one or two IES summer research fellowships for a 3-month period during summer 1985. These awards provide research opportunities for Ph.D.'s with current academic appointments to do ecological research as part of the IES program at the Mary Flagler Cary Arboretum in Millbrook, New York. A diversity of terrestrial, wetland, and stream habitats, as well as excellent laboratory facilities, is available on the 779-hectare site. Award provides summer stipend plus limited funds for research supplies; low-cost housing is available on site during summer. Applicants should have a Ph.D., an ecosystem orientation, a guaranteed job for fall 1985, and be interested in collaborative multidisciplinary studies. Send letter of application, curriculum vitae and names of three references by 1 February to: **Dr. Gene E. Likens, Director, Institute of Ecosystem Studies, The Mary Flagler Cary Arboretum, Box AB, Millbrook, New York 12545. An Equal Opportunity Employer.**

## FELLOWSHIPS

**SEVEN POSTDOCTORAL FELLOWSHIP POSITIONS** available in fall 1985 for research in estuarine lagoon and nearshore continental shelf waters. Research areas include zooplankton biology, invertebrate reproduction and development, benthic community ecology, fish ecology and behavior, sedimentary processes, biogeochemistry, physical oceanography, and macroalgal biology. Deadline for application is 1 April 1985. Request information brochure and application packet from:

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

## ASSISTANTSHIPS

### ASSISTANTSHIPS

**MEDICAL SCIENTIST TRAINING PROGRAM** offers assistantships for a select number of individuals for an integrated program in basic and clinical medical science leading to a combined M.D./Ph.D. degree in 6 to 7 years. Contact: **Director, Medical Scientist Training Program, College of Graduate Studies, Medical University of South Carolina, Charleston, South Carolina 29425.**

**GRADUATE ASSISTANTSHIPS IN MOLECULAR BIOLOGY AND BIOCHEMISTRY** at Oregon Graduate Center. Research programs in: microbial and plant metabolism, enzymology, and transport; plant and fungal genetics and molecular genetics; structure and function of metalloproteins. Research assistantships of \$8600 with remission of tuition available to qualified Ph.D. students. Write: **Chairman, Department of Chemical, Biological, and Environmental Sciences, Oregon Graduate Center, 19600 Northwest Walker Road, Beaverton, Ore. 97006. Affirmative Action/Equal Opportunity Employer.**

**BIOLOGY—GRADUATE ASSISTANTSHIPS** Twelve-month support to study cell physiology/biophysics or microbiology/environmental microbiology. Write to:

**Dr. Harry Roy, Graduate Coordinator  
Biology Department  
Rensselaer Polytechnic Institute  
Troy, New York 12180-3590  
Rensselaer is an Equal Opportunity/Affirmative Action Employer.**

## COURSES

**ADVANCED LABORATORY COURSES IN MOLECULAR BIOLOGY AND BIOCHEMISTRY.** The Applied Molecular Biology Program at the University of Maryland Baltimore County (UMBC) provides intensive, state-of-the-art laboratory courses in recombinant DNA technology, hybridoma and other immunological methods, advanced microbial genetics, and biochemical techniques. These laboratories are open on a space available basis to qualified industrial scientists at cost. Contact: **Dr. Richard L. Karpel, Department of Chemistry, UMBC, Catonsville, Md. 21228; telephone: 301-455-2510.**

### HOW TO MAKE MICROCAPSULES—A HANDS ON COURSE

A 3-day laboratory course designed to teach the art and science of microcapsule making. Suitable for biologists, pharmacists, chemists, life scientists, and engineers. Enrollment limited to nine. Lectures and laboratory sessions by Dr. Curt Thies, professor of chemical engineering at Washington University in St. Louis. Spring session: 20 to 22 March 1985. For information, **telephone: 314-889-6066.**

**LASER INTERACTIONS WITH CELLS AND TISSUES: A minicourse.** Topics: Laser physics, optics, and delivery systems subcellular microsurgery—Fluorescence excitation laser tissue interactions, including clinical uses. Information: comprehensive course, 27 to 29 March 1985, offers three morning lectures, three afternoon and two evening laboratories and book: \$750. Contact: **Michael W. Berns, Ph.D., Department of Cell Biology, University of California, Irvine, Calif. 92717; telephone: 714-856-7033. Sponsors: UCI-NIH Biotech Resource Facility—Beckman Laser Institute.**

## SYMPOSIA

Fogarty International Center and the National Cancer Institute of the National Institutes of Health present an **INTERNATIONAL SYMPOSIUM** on "Biochemistry and Molecular Genetics of Cancer Metastasis." This symposium will be held at the NIH campus (Bethesda, Maryland) from 18 to 20 March 1985.

The main topics of the symposium are: (i) molecular genetics of metastasis, (ii) biochemical mechanisms of metastatic cells, (iii) tumor cell movement and the cytoskeleton, and (iv) immunologic and therapeutic aspects of metastases.

There will be a joint poster session. Abstracts of posters should be sent in by 15 February 1985.

Preregistration is requested, but no fee is required.

Further information concerning the symposium and format of posters can be obtained from:

**Ruth Rappoport  
HCR  
2021 L Street, NW  
Third Floor  
Washington, D.C. 20036  
Telephone: 202-955-6073**

### CALL FOR PAPERS

A symposium: "Is The Earth A Living Organism?"

2 to 6 August 1985, a special symposium to consider the question "Is The Earth A Living Organism?" will be held at the University of Massachusetts in Amherst. Dr. Jim Lovelock will keynote. Proposals for research papers from all disciplines are invited. For details, contact: **Dr. Jim Swan, National Audubon Society Expedition Institute, Box 637, Mill Valley, California 94941. Telephone: 415-383-5064.**

## PROGRAMS

### CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Ph.D.—O.D. Program Director, Admissions Office, Room 10, The New England College of Optometry, 424 Beacon Street, Boston, Mass. 02115.**

**ENGINEERING AND PUBLIC POLICY IN THE NEW LIBERAL ARTS:** In collaboration with an ongoing national initiative to promote a higher level of science, technology, and quantitative reasoning in 4-year undergraduate liberal arts curricula, the Department of Engineering and Public Policy (EPP) at Carnegie-Mellon University has a program of forgivable loans to support EPP Ph.D. students who wish to pursue careers as faculty in liberal arts colleges upon graduation. The EPP graduate program is aimed at a research-based Ph.D., specializing in several research areas including energy/environmental systems, risk analysis, social impacts of computer and telecommunication technologies, industrial automation and robotics, materials policy, and national defense policy. Applicants must hold a bachelor's degree in engineering or science. Preference will be given to persons who hold an M.S. and/or have teaching experience. Contact: **Dr. Indira Nair, Engineering and Public Policy, Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213; telephone: 412-578-2670.**

### GRADUATE PROGRAM IN BIOTECHNOLOGY AT TEXAS A&M UNIVERSITY

Applications are invited for an interdisciplinary biotechnology program leading to doctoral degrees in biochemistry, biology, entomology, genetics, soil and crop sciences, or veterinary medicine. Research areas include application of recombinant DNA and gene transfer techniques to problems of plant and animal biology, plant tissue culture and embryogenesis and protein structure and function. Competitive fellowship support is provided by USDA biotechnology training grant, University Graduate College, and Texas Agricultural Experiment Station. Research assistantships and other support from the participating Colleges of Agriculture, Science, and Veterinary Medicine in the Texas A&M system are also available. Direct inquiries to: **Dr. Terry L. Thomas, Department of Biology, Texas A&M University, College Station, Texas 77843.**

Texas A&M is an Affirmative Action/Equal Opportunity Employer.



## IMMUNOLOGIST PhD



Ayerst Laboratories, a subsidiary of Fortune 100 American Home Products, has an immediate opening in Immunology at its new facility in Princeton, New Jersey.

The successful candidate should possess a doctorate degree with postdoctoral training in lymphokines along with experience in other aspects of immunology and cellular immunology. Knowledge in the areas of computer programming and/or molecular biology would be helpful.

In addition to an excellent benefits package, Ayerst offers an ultra modern facility in a beautiful New Jersey setting.

Interested candidates should forward their curriculum vitae to:

**Ayerst®**

Personnel Manager  
**AYERST LABORATORIES  
RESEARCH, INC.**

CN 8000, Dept. K-7  
Princeton, NJ 08540  
An equal opportunity employer M/F/H

## Research Associate at the National Bureau of Standards

**The College of American Pathologists offers the position of Roger K. Gilbert Fellow tenable at the National Bureau of Standards (NBS), Gaithersburg, Maryland.**

The Fellow will work in the Organic Analytical Research Division at NBS on the development of definitive methods for organic serum constituents using isotope dilution/gas chromatography/mass spectrometry and on the development of new reference materials for clinical chemistry. The position is a one-year appointment, renewable for a second year, and

offers excellent opportunity in advanced technology in analytical chemistry.

A doctorate in chemistry or a related discipline with experience in mass spectrometry or clinical chemistry is required. Experience in biochemistry, analytical instrumentation, chromatography, and organic synthesis is also appropriate.

Qualified applicants should submit a resume before March 1, 1985 to: Derenda Nichols, **College of American Pathologists**, 7400 North Skokie Boulevard, Skokie, Illinois 60077.

# RESEARCH PSYCHOLOGIST

The Office of Naval Research is seeking a highly qualified individual to plan and manage a contract research program in instructional and cognitive psychology. The research sponsored is conducted principally at universities, government and industrial laboratories by leading scientists in the field. This is a Civil Service position at the GM-13 (\$36,327-\$47,226), GM-14 (\$42,928-\$55,807) or GM-15 (\$50,495-\$65,642) level, depending on individual qualifications.

The responsibilities of the incumbent will include formulating, implementing and monitoring research programs in new areas in the fields of learning and instructional psychology, mathematical psychology, cognitive processes and their neurological correlates, psychometrics, computer modeling and simulation, human information processing, and artificial intelligence. Knowledge of, or experience in, three or more of these areas is desirable. The incumbent will define new research opportunities, communicate ONR interest to the technical community,

evaluate research proposals, manage available resources, and represent the program to Navy management. An inherent job satisfaction in the position is obtained through the opportunity to have a creative and significant impact on the quality of research conducted at the national level.

Applicants must have a Ph.D. or equivalent or a minimum of four years of progressively responsible experience in research psychology with particular emphasis on human learning, information processing and cognition. All applicants must have at least one year of experience comparable in difficulty and responsibility to the next lower level in the Federal Service. Equivalent combinations of professional experience and graduate education may be acceptable.

Interested persons should submit a Standard Form 171, Personal Qualifications Statement (available at Federal Job Information Centers or from the address below), to:

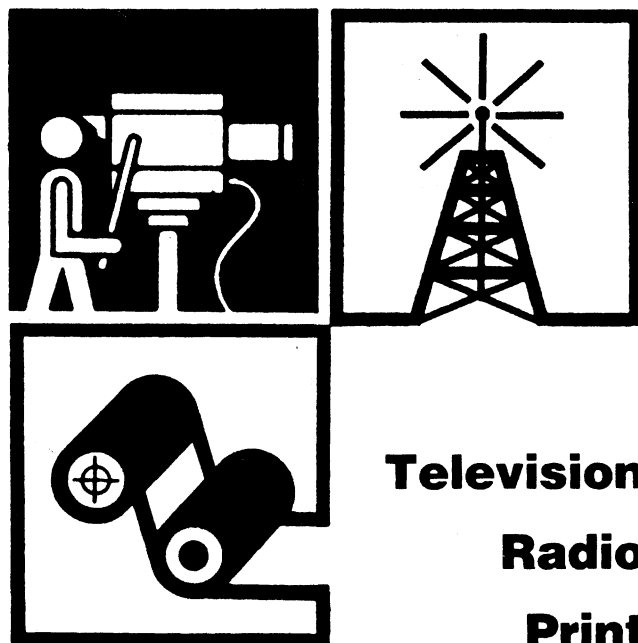
**Office of Naval Research**  
Civilian Personnel Division, Code 791SC  
Attn: Announcement #84-69 (S)  
800 North Quincy Street  
Arlington, VA 22217-5000

Applications will be accepted through 25 February 1985 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplemental forms, please call (202) 696-4705.

An Equal Opportunity Employer

U.S. Citizenship Required

# 1984 AAAS Westinghouse Science Journalism Awards



**Television**  
**Radio**  
**Print**

## Rules

The aim of this competition is to encourage and recognize outstanding reporting on the sciences and their engineering and technological applications in newspapers, general circulation magazines, radio, and television. The following categories are not eligible: items on the field of medicine, items published originally in AAAS publications or produced by AAAS; reports by employees of the AAAS or Westinghouse Electric Corporation.

### Print

- An entry for a newspaper competition may be any of the following: a single story; a series of articles; or a group of three unrelated stories, articles, editorials, or columns published during the contest year. A magazine entry may be a single story or series published during the contest year.

- A completed entry blank must be submitted together with seven copies of each entry in the form of tear sheets, clippings, reprints, or syndicate copy (not over 8½" × 11"), showing name and date of the publication. **ENTRIES MUST NOT BE ELABORATE!**

### Broadcast

- An entry for the radio or television competition may be an individual news story, feature, or a series, regardless of length, broadcast during the contest year on either public or commercial stations. Entries must be comprised of scripted material. Interviews are not eligible.

- A completed entry blank must be submitted together with a cassette in the case of radio and and copy of the script or a ¾" videocassette in the case of television and copy of the script.

- Each entrant may submit three entries for any one category.
- Each entry must have been published or produced and broadcast within the United States during the contest year—**1 January 1984 through 31 December 1984**. (In case of a series, more than half of the items comprising it must have been published or broadcast during the contest year.) The date on the issue in which an article appears will be considered as the date of publication. All entries must be postmarked on or before midnight, 15 January 1985.

- Persons other than the author may submit entries in accordance with these rules. Entries will not be returned.

- Winners of the 1983 awards are not eligible for the 1984 awards. Persons winning three times are no longer eligible.

- The Judging Committees, whose decisions are final, will choose the winners. There are five awards of \$1,000: for the winning entry in the over 100,000 daily circulation newspapers competition; for the winning entry in the under 100,000 circulation newspapers competition; for the winning entry in the general circulation magazine competition; for the winning entry in the radio competition; and for the winning entry in the television competition. For award purposes, newspaper circulation will be sworn ABC daily circulation as of 30 September 1983. The Judging Committees may cite other entries for honorable mention.

- The awards will be presented at the dinner meeting of the National Association of Science Writers during the Annual Meeting of the American Association for the Advancement of Science in Los Angeles in May 1985. Travel and hotel expenses of the award winners will be paid. **Entrants agree that, if they win, they will be present to receive their awards, unless prevented by circumstances beyond their control.**

Grayce A. Finger

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

1515 Massachusetts Avenue, N.W. Washington, D.C. 20005