

group theory and its applications to the modern gauge theories of elementary particle physics, which form the subject matter of this monograph. It is an important subject, since the gauge symmetries, based on continuous groups called Lie groups, are central to our understanding of the structure of matter and its interactions. The first half of the book, entitled *Group Structure*, is an introduction to Lie groups and their representations. The material is fairly standard. The author starts with the definition of a group and takes us up to Dynkin diagrams and to global group structure. The great virtues of this half of the book lie in its conciseness and mathematical detail. Even physicists familiar with the subject will probably profit from it.

The second half of the book, entitled *Gauge Theory*, illuminates the group-theoretical structure of the gauge theories of electroweak, strong, and grand unified interactions. Again much of the content is standard. However, most of the material in the last few chapters on orbit structure, the minimization of Higgs potentials, and symmetry-breaking patterns has not appeared before in book form.

The pedagogical value of the book is greatly enhanced by an extensive set of references to original papers and review literature (sometimes the references in the text do not adequately distinguish the two), a well-selected set of suggestions for further reading, and a seven-page glossary. The author has made a deliberate attempt to avoid extensive overlap with existing books and reviews. As a result the reader will not find much discussion of certain group-theoretic aspects of gauge theory such as homotopy theory and topological solutions, gauge-fixing, renormalization theory and BRS symmetry, and supersymmetry. The author has chosen to narrow, so as to sharpen, his focus. In this he has been successful. The writing is crisp and precise.

The book does contain a few careless errors. The most serious, since it makes the subsequent discussion hard to follow, is a statement about how fermions are assigned to representations of a grand unified group (p. 118). The others are relatively minor. The explanations are generally clear (an exception is the section on the running and unification of the gauge couplings in unified theories).

Altogether, the book is a welcome addition to the literature in this field, by a real expert, and will repay the closest study. It is especially an excellent book for graduate students in physics.

STEPHEN M. BARR
Brookhaven National Laboratory,
Brookhaven, NY 11973

Ices

Ices in the Solar System. JÜRGEN KLINGER, DANIEL BENEST, AUDOUIN DOLLFUS, and ROMAN SMOLUCHOWSKI, Eds. Reidel, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). xviii, 954 pp., illus. \$99. NATO Advanced Science Institutes, Series C, vol. 156. From a workshop, Nice, Jan. 1984.

The significance of ices in terrestrial and planetary systems amply justifies the size of this large volume. Ice, in the mineralogically correct sense of frozen water, is the basic component of permafrost, which covers as much as a quarter of Earth's land surface, and the phase relationships of the water-ice system and the rheology of ice are basic parameters of the behavior of the glaciers and ice sheets that have dominated much of the higher-latitude regions.

Ices in the more general sense, including frozen volatiles such as H_2O , CO_2 , CH_4 , NH_3 , and various hydrates of these and less abundant ices, play central roles in the evolutionary history, present state, engineering properties, and even economic potential of terrestrial systems. The recent discovery of extensive natural gas clathrates (solid methane hydrates) in the permafrost regions of Siberia, Alaska, and northern Canada and in marine sediments is potentially of major economic importance. In the solar system beyond the orbit of Earth, ices also play a major role. In the satellites of the outer solar system they are often more abundant than the silicates and metals that constitute the bulk of the terrestrial planets. A knowledge of the special properties of these ices is thus important in understanding the history and current state of the majority of solar system bodies.

This book is the proceedings of a workshop that brought together many of the leading authorities on the subject. It is composed of five major sections: Physics and Remote Sensing of Ices (physical properties, pressure-temperature phase behavior, optical and spectral properties, the nature of clathrates); Cosmochemistry of Ices and Interplanetary Particles (nature of interstellar and interplanetary grains, modifications of ices by charged particle bombardment); The Icy Nuclei of Comets; Ices on Mars; and Rings, Icy Satellites, and Pluto. Each section consists of six to 16 papers that range from detailed descriptions of well-characterized physical and chemical systems to the most current interpretations and theories of the nature and processes of these icy planetary bodies. In content and readability they range from acceptable to outstanding.

The scope of the book goes much beyond ices to include aspects of the formation of

the solar system and the evolution of a number of planetary bodies. The reader is introduced to some fascinating worlds: Titan and its hydrocarbon ocean, Mars and its alternating polar caps, the vagaries of cometary behavior, Uranus and its coal black rings, and many others. Future work may well disprove some or all of the models presented. But past experience in planetary exploration suggests that we underestimate the complexity and strangeness of bodies in the solar system at least as often as we overestimate them. The reader gets a good flavor of this complexity in these papers.

The book was completed before the recent Voyager 2 Uranus encounter and the flyby of Comet Halley by the European, Soviet, and Japanese spacecraft. Thus the discussions of the rings and satellites of Uranus and of cometary nuclei are of necessity less than complete. With the present hiatus in U.S. missions there is not likely to be any equivalent increment in our knowledge of the solar system for nearly a decade. This book will thus remain a good summary of the state of the art for a number of years.

The text was reproduced from camera-ready copy supplied by the authors and varies significantly in type face and proof-reading quality. The transposition of the text on pp. 68 and 69 is the only significant production flaw I noted.

MICHAEL J. GAFFEY
Department of Geology,
Rensselaer Polytechnic Institute,
Troy, NY 12180

Reprints of Books Previously Reviewed

Ice Ages. Solving the Mystery. John Imbrie and Katherine Palmer Imbrie. Harvard University Press, Cambridge, MA, 1986. Paper, \$7.95. *Reviewed* 204, 751 (1979).

Laboratory Life. The Construction of Scientific Facts. Bruno Latour and Steve Woolgar. Princeton University Press, Princeton, NJ, 1986. Paper, \$12.50. With new postscript and subtitle. *Reviewed* 206, 824 (1979).

Occult and Scientific Mentalities in the Renaissance. Brian Vickers, Ed. Cambridge University Press, New York, 1986. Paper, \$15.95. *Reviewed* 226, 1185 (1984).

Books Received

Acid Deposition. Environmental, Economic, and Policy Issues. Donald D. Adams and Walter P. Page, Eds. Plenum, New York, 1986. xii, 560 pp., illus. \$79.50. Based on a conference, Plattsburgh, NY, June 1983.

Adaptational Biology. Molecules to Organisms. C. Ladd Prosser. Wiley-Interscience, New York, 1986. xii, 784 pp., illus. \$99.50; paper, \$49.50.

Adaptive and Learning Systems. Theory and Applications. Kumpati S. Narendra, Ed. Plenum, New York, 1986. viii, 418 pp., illus. \$65. From a workshop, New Haven, CT, May 1985.

The Adrenal Gland and Hypertension. F. Mantero *et al.*, Eds. Raven, New York, 1986. xviii, 465 pp., illus. \$63.50. Sero Symposia Publications, vol. 27.

Advances in Forensic Haemogenetics 1. B. Brink-

mann and K. Henningsen *et al.*, Eds. Springer-Verlag, New York, 1986. xiv, 505 pp., illus. Paper, \$51.50. From a congress, Copenhagen, Aug. 1985.

Instrumentation in Analytical Chemistry 1982-86. Stuart A. Borman, Ed. American Chemical Society, Washington, DC, 1986. x, 321 pp., illus. \$39.95; paper, \$24.95.

Introduction to Organic Photochemistry. J. D. Coyle. Wiley, New York, 1986. viii, 176 pp., illus. \$31.95.

John Ray. Naturalist. His Life and Works. Charles E. Raven. Cambridge University Press, New York, 1986. xxvi, 506 pp. Paper, \$24.95. Cambridge Science Classics. Reprint, 1950 edition.

John Xantus. The Fort Tejon Letters 1857-1859. Ann Zwinger. University of Arizona Press, Tucson, 1986. xxvi, 255 pp., illus. \$23.50.

El Juego Viviente. Indagación sobre las Partes Ocultas del Objeto Lúdico. Gabriel Weisz. Siglo Veintiuno Editores. Delegación Coyoacán, Mexico, 1986. (U.S. distributor, Hispania Books Distributors, Washington, DC). 183 pp. Paper, \$2.30.

Microfloral and Faunal Interactions in Natural and Agro-Ecosystems. Myron J. Mitchell and James P. Nakas, Eds. Nijhoff/Junk, Dordrecht, 1986 (U.S. distributor, Kluwer, Hingham, MA). vi, 505 pp., illus. \$69. Developments in Biogeochemistry.

Mobilizing Against AIDS. The Unfinished Story of a Virus. Institute of Medicine, National Academy of Sciences. Eve K. Nichols, writer. Harvard University Press, Cambridge, MA, 1986. xii, 212 pp., illus. \$15; paper, \$7.95. Based on a meeting, Washington, DC, Oct. 1985.

Molecular Biology of Muscle Development. Charles Emerson *et al.*, Eds. Liss, New York, 1986. xxx, 957 pp., illus. \$140. UCLA Symposia on Molecular and Cellular Biology, New Series, vol. 29. From a symposium, Park City, UT, March 1985.

North American Sturgeons. Biology and Aquaculture Potential. Frederick P. Binkowski and Sergei I. Doroshov, Eds. Junk, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). 163 pp., illus. \$63.50. Developments in Environmental Biology of Fishes, 6.

From a symposium, Milwaukee, WI, Aug. 1983. Reprinted, with additions, from *Environmental Biology of Fishes*, 14 (1), 1985.

Nuclear Magnetic Resonance. H. F. Linskens and J. F. Jackson, Eds. Springer-Verlag, New York, 1986. xii, 196 pp., illus. \$66. Modern Methods of Plant Analysis, New Series, vol. 2.

Nutrition and the Skin. Daphne A. Roe, Ed. Liss, New York, 1986. x, 199 pp., illus. \$39.50. Contemporary Issues in Clinical Nutrition, vol. 10.

On the Track of Ice Age Mammals. Antony J. Sutcliffe. Harvard University Press, Cambridge, MA, 1985. 224 pp., illus. \$25.

Physics of Desertification. Farouk El-Baz and M. H. A. Hassan, Eds. Nijhoff, Dordrecht, 1986 (U.S. distributor, Kluwer, Hingham, MA). xii, 473 pp., illus. \$79. From a workshop, Trieste, Italy, Nov. 1980.

Plague and the Poor in Renaissance Florence. Ann G. Carmichael. Cambridge University Press, New York, 1986. xvi, 180 pp., illus. \$29.95. Cambridge History of Medicine.

Plankton Dynamics of the Southern California Bight. Richard W. Eppey, Ed. Springer-Verlag, New York, 1986. xiv, 373 pp., illus. Paper, \$31.40. Lecture Notes on Coastal and Estuarine Studies, 15.

Plant Proteins. Applications, Biological Effects, and Chemistry. Robert L. Ory, Eds. American Chemical Society, Washington, DC, 1986. x, 285 pp., illus. \$59.95. ACS Symposium Series, 312. Based on symposium, Chicago, Sept. 1985.

Policies, Plans, and People. Culture and Health Development in Nepal. Judith Justice. University of California Press, Berkeley, 1986. xvi, 202 pp., illus. \$29.95. Comparative Studies of Health Systems and Medical Care.

The Politics of Energy Research and Development. John Byrne and Daniel Rich, Eds. Transaction Books, New Brunswick, NJ, 1986. x, 181 pp., illus. Paper, \$14.95. Energy Policy Studies, vol. 3.

The Politics of Uncertainty. Regulating Recombinant DNA Research in Britain. David Bennett, Peter Glasner, and David Travis. Routledge and Kegan

Paul (Methuen), New York, 1986. xii, 218 pp. \$35.

Polyamines in Plants. Arthur W. Galston and Terence A. Smith, Eds. Nijhoff/Junk, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). xxii, 422 pp., illus. \$52.50. Advances in Agricultural Biotechnology. Reprint of *Plant Growth Regulation*, vol. 3, nos. 3-4 (1985).

Practical Protein Chemistry. A Handbook. A. Darbre, Ed. Wiley-Interscience, New York, 1986. xx, 620 pp., illus. \$95.

Precursors of Early Speech. Björn Lindblom and Rolf Zetterström, Eds. Stockton, New York, 1986. xx, 314 pp., illus. \$80. Wenner-Gren Center International Symposium Series, vol. 44. From a symposium, Stockholm, Sept. 1984.

Prehistoric Lowland Maya Environment and Subsistence Economy. Mary Pohl, Ed. Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, MA, 1985 (distributor, Harvard University Press, Cambridge, MA). xii, 209 pp., illus. Paper \$20. Peabody Museum Papers, vol. 77.

Progress in Science and Its Social Conditions. Tord Ganelius, Ed. Published for the Nobel Foundation by Pergamon, New York, 1986. viii, 248 pp., illus. \$44. Noble Symposium, 58 (Lidingö, Sweden, Aug. 1983).

Quantum Mechanics. Foundations and Applications. Arno Bohm, 2nd ed. prepared with M. Loewe. Springer-Verlag, New York, 1986. xviii, 596 pp., illus. \$49.50. Texts and Monographs in Physics.

Receptor Binding. Alan A. Boulton, Glen B. Baker, and Pavel D. Hrdina, Eds. Humana, Clifton, NJ, 1986. xxii, 584 pp., illus. \$64.50. Neuromethods. Series 1. Neurochemistry, 4.

Reflections on Reasoning. Raymond S. Nickerson. Erlbaum, Hillsdale, NJ, 1986. xiv, 136 pp., illus. \$19.95; paper, \$12.50.

Reflections on the Motive Power of Fire. A Critical Edition with the Surviving Scientific Manuscripts. Sadi Carnot. Translated and edited by Robert Fox. Manchester University Press, Manchester, England, and Lilian Barber, New York, 1986. x, 230 pp., illus. £25.

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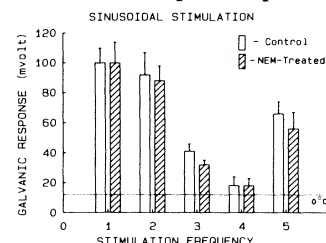
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(Continued from page 95)

Reinvesting Technology. Policies for Democratic Values. Michael Goldhaber. Routledge and Kegan Paul (Methuen), New York, 1986. xii, 260 pp. \$25; paper, \$13.95. Alternative Policies for America.

Relativity in Celestial Mechanics Astronomy. High Precision Dynamical Theories and Observational Verifications. J. Kovalevsky and V. A. Brumberg, Eds. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Hingham, MA). xviii, 426 pp., illus. \$64.95. International Astronomical Union Symposium 1114 (Leningrad, May 1985).

Renewable Energy Technologies. Their Applications in Developing Countries. L. A. Kristoferson and V. Bokalders. Pergamon, New York, 1986. xviii, 319 pp., illus. \$66.

The Right to Die. Understanding Euthanasia. Derek Humphrey and Ann Wickett. Harper and Row, New York, 1986. xii, 372 pp., illus. \$18.95.

Ring Complex Granites and Anorogenic Magmatism. Bernard Bonin. Elsevier, New York, 1986. xiv, 188 pp., illus. \$45. Translated, with revisions, from the French edition (Orléans, 1982) by John Renouf.

The Role of Freshwater Outflow in Coastal Marine Ecosystems. Stig Skreslet, Ed. Springer-Verlag, New York, 1986. xii, 453 pp., illus. \$104. NATO Advanced Science Institutes Series G, vol. 7. From a workshop, Bodø, Norway, May 1985.

The Role of Receptors in Biology and Medicine. Antonio M. Gotto, Jr. and Bert W. O'Malley, Eds. Raven, New York, 1986. xiv, 219 pp., illus. \$43. From a symposium, Brussels, 1984.

Solvents Safety Handbook. D. J. De Renzo, Ed. Noyes, Park Ridge, NJ, 1986. xii, 696 pp. \$86.

Somaclonal Variations and Crop Improvement. Jean Semal, Ed. Published for the Commission of the European Communities by Nijhoff, Dordrecht, 1986 (U.S. distributor, Kluwer, Hingham, MA). viii, 277 pp., illus. \$50.95. Advances in Agricultural Biotechnology. From a seminar, Gembloux, Belgium, Sept. 1985.

Superstrings and Supergravity. A. T. Davies and D. G. Sutherland, Eds. Scottish Universities Summer School in Physics, University of Edinburgh Physics Department, Edinburgh, 1986. xx, 554 pp., illus. £30. A NATO Advanced Study Institute. From a summer school, Edinburgh, Aug. 1985.

Sustainable Communities. A New Design Synthesis for Cities, Suburbs, and Towns. Sim Van der Ryn and Peter Calthorpe. Sierra Club Books, San Francisco, 1986 (distributor, Random House, New York). xviii, 238 pp., illus. \$25.

The Technical Enterprise. Present and Future Patterns. Herbert I. Fusfeld. Ballinger (Harper and Row), Cambridge, MA, 1986. xiv, 313 pp., illus. \$29.95.

Technical Guide to Thermal Processes. J. Gosse. Cambridge University Press, New York, 1986. xii, 227 pp., illus. \$37.50; paper, \$12.95. Translated from the French edition (Paris, 1981) by W. A. Gray.

A Time to Be Born, A Time to Die. Conflicts and Ethics in an Intensive Care Nursery. Rasa Gustaitis and Ernlé W. D. Young. Addison-Wesley, Reading, MA, 1986. xvi, 267 pp. \$18.95.

Turbulence and Random Processes in Fluid Mechanics. M. T. Lindahl and E. Mollo-Christensen. Cambridge University Press, New York, 1986. vi, 154 pp., illus. \$34.50.

Universal Child Immunization by 1990. P. E. Mandl, Ed. United Nations Children's Fund, Geneva, 1985. xxvi, 476 pp., illus. Paper. *Assignment Children* no. 69/72.

Vaccines 86. New Approaches to Immunization. Developing vaccines against Parasitic, Bacterial, and Viral Diseases. Fred Brown, Robert M. Chanock, and Richard A. Lerner, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 1986. xxii, 418 pp., illus. Paper, \$75. From a meeting, Cold Spring Harbor, NY, 1985.

Viral Etiology of Cervical Cancer. Richard Peto and Harald zur Hausen, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 1986. xiv, 362 pp., illus. \$60. Banbury Report, 21. Based on a conference, Cold Spring Harbor, NY, April 1985.

Vitamin B₆ Pyridoxal Phosphate. Chemical, Biochemical, and Medical Aspects. David Dolphin, Rozanne Poulson, and Olga Avramovic, Eds. Wiley-Interscience, New York, 1986. Two parts. Part A. xvi, 725 pp., illus. \$99.75; Part B. xvi, 792 pp., illus. \$99.75. Coenzymes and Cofactors, vol. 1.

Water-Soluble Polymers. Beauty with Performance. J. E. Glass, Ed. American Chemical Society, Washington, DC, 1986. xii, 449 pp., illus. \$89.95. Advances in Chemistry Sciences. Based on a symposium, Philadelphia, Aug. 1984.

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Please submit curriculum vitae, a summary of research interests, and the names of four referees to: **Dr. Richard A. Murphy, Professor and Chairman, Department of Anatomy and Cell Biology, University of Alberta, Faculty of Medicine, Edmonton, Alberta, Canada T6G 2H7.**

ASSISTANT PROFESSOR BIOMEDICINAL CHEMISTRY

The School of Pharmacy and Comprehensive Cancer Center, University of Southern California (USC), are seeking candidates with Ph.D. in chemistry or biochemistry for tenure-track position. Outstanding candidates with background in molecular biology and strong interest in peptide chemistry relating to protein cytokines and proteotherapeutics in cancer research are encouraged to apply. Teaching of biomedical chemistry is required. Submit curriculum vitae, statement of research goals, and accomplishments by 15 November 1986 to: **Joon Rho, Ph.D., USC School of Pharmacy, 1985 Zonal Avenue, Los Angeles, CA 90033-1086.**
Equal Opportunity Employer, M/F/H

POSITIONS OPEN

ACADEMIC/RESEARCH OPPORTUNITIES IN DENTAL RESEARCH

Research positions available in an expanding clinical and basic research program at levels commensurate with experience and credentials. Research experience in areas related to periodontal diseases, cancer research, bone mineralization, developmental biology as it relates to maxillofacial anomalies, molecular biology, or bioavailability of dental material is preferred. Applicants must have Ph.D., and/or D.D.S., and must have completed at least 2 years of postdoctoral experience. Successful candidates are expected to demonstrate experience in a productive research program, plan detailed future research activities, and show promise for establishing independent, fundable research programs. Send curriculum vitae, bibliography, and names of three references to: **Dr. Mustafa Dabbous, The University of Tennessee, Memphis, 894 Union Avenue, Memphis, TN 38163. An Affirmative Action/Equal Opportunity Employer.**

ASSISTANT PROFESSOR. Two new tenure-track positions will become available in September 1987. The new positions will be offered to qualified individuals who have demonstrated the ability to carry on independent, vigorous, and productive research programs particularly in: control of gene expression, physical biochemistry, protein structure and function, and membrane structure and function. Preference will be given to candidates with significant postdoctoral experience, established productivity, funded or pending research grant, and teaching experience. Duties will include teaching graduate and/or introductory level biochemistry and molecular biology courses. The appointment is for 9 months at a salary commensurate with experience. Please submit curriculum vitae, research synopsis (two to three pages), and letters of recommendation from three references by **15 December 1986**. Send material to: **Dr. Wesley D. Wicks, Biochemistry Department, University of Tennessee, Knoxville, TN 37996-0840. An Equal Opportunity Employer.**

ASSISTANT PROFESSOR, tenure-track position available 1 July 1987 for the conduct of basic and applied research in the chemistry/biochemistry of lipids related to food systems. Responsibilities will include directing the research of graduate students, teaching a graduate course on the basic principles of lipid chemistry, and student advising. There will be the opportunity to teach other courses and/or to develop more courses in the candidate's disciplinary field. Requirements include a Ph.D. in chemistry, biochemistry, food science, or a related field with a strong background in chemistry/biochemistry. Postdoctoral experience and publications in refereed journals would be highly desirable. Send résumé (including a letter detailing scientific expertise, as well as interest in applying fundamental lipid chemistry to food systems), transcripts of undergraduate and graduate work, reprints of publications, and names and addresses of four referees to: **Professor D. S. Reid, Chairman, Search Committee, Department of Food Science and Technology, University of California, Davis, CA 95616. CLOSING DATE: 1 December 1986. The University of California is an Affirmative Action/Equal Opportunity Employer.**

ASSISTANT PROFESSOR OF BIOCHEMISTRY

The Department of Biochemistry seeks applicants for a tenure-track faculty position at the level of assistant professor. Candidates must have at least 2 years of postdoctoral experience and an established record of productivity. Preference will be given to biochemists experienced in modern molecular approaches to studying the structure and function of biologically important proteins. Outstanding candidates in related biochemical research areas will also be considered. Applicant should send curriculum vitae, a statement of research interests, and three letters of recommendation by **15 December 1986** to:

**Dr. Roger A. Laine, Chairman
Faculty Search Committee
Department of Biochemistry
Louisiana State University
Baton Rouge, LA 70803**

Louisiana State University and Agricultural and Mechanical College is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR (Ph.D.)—STATE UNIVERSITY OF NEW YORK, HEALTH SCIENCE CENTER is recruiting a full-time faculty position at the assistant/associate professor level in its research program of the Division of Hematology/Oncology. Candidates must have a Ph.D. in the biological sciences with at least 2 years of postdoctoral experience in molecular biology. Applicants must be academically qualified for appointment at the assistant or associate professor level and willing to accept responsibilities in basic research, teaching, and administration. Rank commensurate with qualifications. Forward letters of interest including a complete curriculum vitae to: **Bernard J. Poesz, M.D., Head, Division of Hematology/Oncology, Department of Medicine, 750 East Adams Street, Syracuse, NY 13210.** Letters should be received no later than **1 November 1986. An Equal Opportunity Employer.**

OREGON STATE UNIVERSITY Assistant Professor in Environmental Biology

The Department of General Science invites applications for a 9-month, full-time, tenure-track position at the assistant professor level in a developing program requiring research and teaching in the general area of human-environmental interaction. Research will emphasize the study, analysis, and interpretation of a wide variety of environmental problems. Teaching will include upper division and graduate courses in environmental science and the applicant's area of expertise. Qualified applicants will have a Ph.D. in a relevant field and an established record in both teaching and research beyond postdoctoral training. It is anticipated that the successful candidate will have: an appropriate academic background in environmental science; a record indicative of significant research potential, including recent publications in peer-reviewed journals, grants and/or contracts awarded, presentations at national and international meetings; evidence of interest or involvement in cooperative research programs; and experience in teaching university level courses. A demonstrated commitment to teaching is an important requirement for the position. Starting date: **15 September 1987.** Applicants should send a current curriculum vitae, a letter detailing research and teaching interests, and letters from three references to:

**Dr. Paul Farber, Chairman
Department of General Science
Oregon State University
Corvallis, OR 97331**

The deadline for applications is **14 November 1986.**

Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF) DEPARTMENT OF LABORATORY MEDICINE

Applications are invited for the following positions involved in a Transfusion Medicine Research Program directed by **Dr. Girish N. Vyas.** The projects are related to viral hepatitis, AIDS and host immune response. Starting date for all positions is fall 1986.

ASSISTANT/ASSOCIATE PROFESSOR IN RESIDENCE M.D./Ph.D. molecular virologist, preferably with experience in hepatitis work (\$34,600 to \$68,900).

ASSISTANT RESEARCH MOLECULAR BIOLOGIST Ph.D. with research experience in nucleic acid analysis (\$34,600 to \$40,700).

ASSISTANT RESEARCH IMMUNOLOGIST Ph.D. molecular immunologist with experience in immune complex research (\$34,600 to \$40,700).

STAFF RESEARCH ASSOCIATE II B.S./M.S. senior technician to perform research involving tissue culture, virology, and immunologic assays. Three SRA II positions are open (\$23,652 to \$28,451).

Applicants should send curriculum vitae, plus a list of three references to:

**Joan Arenius
Project Administrator
Box 0100, Department of Laboratory Medicine
University of California, San Francisco
San Francisco, CA 94143**

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

POSITIONS OPEN

ASSISTANT PROFESSOR OF ANATOMY—The Department of Anatomy, University of Wisconsin—Madison invites applications for a tenure-track position which would begin on or after 1 July 1987. Applicants should have a doctoral degree and at least 2 years of postdoctoral training. The department is particularly interested in candidates with experience in current cellular or molecular approaches to problems in cell biology, neurobiology, or developmental biology. The successful candidate will be expected to establish a strong, independent research program and to teach medical or graduate students in an area of expertise. Send curriculum vitae, list of publications, names and addresses of three references, and a summary of research interests to: **Dr. John K. Harting, Chairman, Department of Anatomy, University of Wisconsin—Madison, 1300 University Avenue, Madison, WI 53706.** Deadline for applications is **1 December 1986. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR—BIOCHEMISTRY

A tenure-track position is available in the Department of Biochemistry, Schools of Medicine, Dentistry, and Pharmacy at the State University of New York (SUNY) at Buffalo. The successful candidate will develop a productive research program with extramural funding, teach graduate, undergraduate, and professional students and train Ph.D. candidates. Talented biochemists are encouraged to submit curriculum vitae, statement of long-term research objectives, and reprints or preprints. Applicants should have three letters of reference sent to:

**Dr. Daniel J. Kosman
Chair, Search Committee
Department of Biochemistry
102 Cary Hall
SUNY at Buffalo, NY 14214**

Deadline: **31 December 1986.**

*An Equal Opportunity/Affirmative Action Employer
Women and minorities are encouraged to apply.*

ASSISTANT PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology in the College of Medicine of the University of Tennessee, Memphis, invites applications from individuals with strong research credentials in molecular biology for a tenure-track position, available immediately, at the level of assistant professor. Applicants must have a Ph.D. and/or M.D. degree, have completed not less than 2 years of postdoctoral training, and have a demonstrated ability to conduct independent research. Preference will be given to applicants who apply the techniques of molecular biology to research problems in lipoprotein metabolism. The applicant selected for this position will be expected to develop a strong research program and to participate in departmental teaching activities. Closing date is **31 December 1986.** To apply, please submit curriculum vitae, statement of research interests, and arrange for three letters of reference to be sent to: **University of Tennessee, Memphis, Department of Pharmacology, 800 Madison Avenue, Memphis, TN 38163, attention Dr. Murray Heimberg. The University of Tennessee is an Equal Opportunity/Affirmative Action Employer.**

PROFESSOR OF BIOCHEMISTRY

The Department of Biochemistry at the State University of New York (SUNY) at Buffalo seeks an established scientist to develop a center of excellence in an area of biochemistry. This individual will also supervise and contribute to the education of graduate and professional students and fellows. The successful candidate will have had several years of experience in a tenured position; a distinguished record of publication, funding, and leadership, and proven competence in teaching and research training. Please send applications including curriculum vitae, statement of research interests, and names of three references to:

**Dr. Daniel J. Kosman
Chair, Search Committee
Department of Biochemistry
102 Cary Hall
SUNY at Buffalo, NY 14214**

Deadline: **15 November 1986**

*An Affirmative Action/Equal Opportunity Employer
Women and minorities are encouraged to apply.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF MOLECULAR BIOLOGY AND MICROBIOLOGY

The Department of Molecular Biology and Microbiology at Case Western Reserve University invites applications for a tenure-track faculty position. We are interested in the best qualified applicants working in any area of the molecular biology of gene expression. The appointment provides excellent opportunities to develop a strong, independent research program, as well as a variety of collaborations with other investigators in our research community. Send curriculum vitae, a statement of research and teaching interests, and the names of four references to: **Dr. Fritz Rottman, Chairman, Department of Molecular Biology and Microbiology, Case Western Reserve University, School of Medicine, Cleveland, OH 44106. An Equal Opportunity Affirmative Action Employer.**

ASSISTANT PROFESSOR IN DEVELOPMENTAL BIOLOGY MARQUETTE UNIVERSITY

A tenure-track position is available 1 January or 15 August 1987 in the Biology Department. Candidate must have the ability to develop an independent research program in some area of contemporary developmental biology and to attract extramural support. Teaching responsibilities include an annual one-semester undergraduate laboratory course in developmental biology and a graduate specialty course in alternate years.

Send curriculum vitae, names and addresses of three references, and a statement of current research interests to: **Dr. Peter Abramoff, Department of Biology, Marquette University, Milwaukee, WI 53233. An Affirmative Action/Equal Opportunity Employer.**

ASSISTANT OR ASSOCIATE PROFESSOR IN DEVELOPMENTAL NEUROBIOLOGY

The Department of Zoology of the University of Massachusetts at Amherst invites applicants for a tenure-track position in developmental neurobiology for September 1987. Applicants must have a Ph.D. and postdoctoral experience and must demonstrate ability to pursue an active research program. Duties include teaching and graduate student supervision in the Zoology Department and in the new Neuroscience and Behavior Graduate Program. Application deadline is 31 October 1986. Send application, curriculum vitae, statement of research goals, and names of at least three referees to: **Dr. Gordon Wyse, Chairman, Developmental Neurobiology Search Committee, Department of Zoology, University of Massachusetts, Amherst, MA 01003. The University of Massachusetts is an Affirmative Action/Equal Opportunity Employer.**

The Department of Chemistry of the University of Chicago invites applications from outstanding individuals for **ASSISTANT PROFESSOR** (tenure-track) **FACULTY POSITIONS** in physical chemistry and in inorganic chemistry. Postdoctoral experience is preferred. Applicants should submit curriculum vitae, a list of publications, a succinct outline of their research plans, and should arrange for three letters of recommendation to be sent to: **Professor Leon M. Stock, Chairman, Department of Chemistry, The University of Chicago, 5735 South Ellis Avenue, Chicago, IL 60637. An Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR OF SOIL SCIENCE. Applications are invited for a tenure-track faculty position available 1 March 1987. The area of specialization is soil management and conservation with 70 percent extension and 30 percent research time commitments. Extension should address the management and use of seasonably wet soils and soil erosion. Research should address the management and use of soils for crop production.

Applicants should send curriculum vitae, transcripts, and the names of three referees to: **R. F. Lucey, Chairman, Department of Agronomy, Cornell University, Ithaca, NY 14853. Application deadline is 1 December 1986.**

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

ASSISTANT PROFESSORSHIP IN MICROBIOLOGY/COLLEGE OF MEDICINE: Tenurable position beginning August 1987, salary dependent upon training and experience. Ph.D. and/or M.D. and a minimum of 2 years of postgraduate research experience required. Appointee will be expected to participate in a program of instruction in microbiology for medical students, direct graduate student research, and develop a vigorous program of research at the molecular level. Send résumé and names of three referees to: **Dr. Jeffrey Gardner, Department of Microbiology, University of Illinois, 131 Burrill Hall, 407 South Goodwin, Urbana, IL 61801; telephone: 217-333-7287.** To receive full consideration, applications should be received by 15 January 1987. Some interviews may be conducted before 15 January 1987. However, all applications received by that date will be given equal consideration. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

PRINCETON UNIVERSITY— BIOSTRUCTURAL CHEMISTRY

As part of an expanding focus on the life sciences at Princeton University, the Departments of Chemistry and Molecular Biology invite applications for **ASSISTANT PROFESSORSHIPS** from individuals whose work emphasizes the structure and function of biologically important macromolecules (proteins, nucleic acids, polysaccharides, and phospholipids). More senior appointments could be considered in appropriate cases. These appointments will complement existing faculty interests in spectroscopy (Raman, ESR, and NMR), protein crystallography, bioorganic chemistry and nucleic acid chemistry, in addition to molecular genetics and cell biology. Application can be made to either department and should include a description of research interests, curriculum vitae, and three letters of recommendation and should be sent by 30 November 1986 to:

**Professor John T. Groves
Department of Chemistry
Frick Laboratory
Princeton University
Princeton, NJ 08544**

**OR
Professor Jane Flint
c/o Laima Cole
Molecular Biology
Lewis Thomas Laboratory
Princeton University**

Princeton is an Equal Opportunity/Affirmative Action Employer.

The University of California, San Diego (UCSD) is recruiting an **ASSISTANT RESEARCH VIROLOGIST**. The applicant must have a Ph.D. with expertise in retrovirology, cell and virus culture, and molecular biology to conduct research in AIDS pathogenesis and the role of viral cofactors. Position available immediately for at least 2 years. Salary range is based on University of California pay scale. Interested individuals should send curriculum vitae with a list of three references no later than 1 October 1986 to: **Stephen A. Spector, M.D., Associate Professor, Department of Pediatrics, UCSD Medical Center, 225 Dickinson Street (H-814-H), San Diego, CA 92103. Equal Opportunity/Affirmative Action Employer.**

BIOCHEMIST/PROTEIN CHEMIST needed immediately for purification, characterization, and cell biology of lysosomal enzymes. New Ph.D. or 1 to 2 years of postdoctoral experience. Protein characterization methods, HPLC, 2-D gels, and immunoblotting technique all assets. Project supported by National Gaucher Foundation. Apply by 31 October for immediate start. Send full résumé to: **Dr. Gary J. Murray, Laboratory of Molecular Genetics, Park Building, Room 435, National Institutes of Health, Bethesda, MD 20892.**

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

POSITIONS OPEN

ASSISTANT RESEARCH NEUROIMMUNOLOGIST. Department of Neurology, University of California, San Francisco. Candidate required to have at least 2 years of postdoctoral experience. This position requires extensive experience in acetylcholine receptor biochemistry, monoclonal antibody production (including anti-active site antibodies), immunocytochemistry, as well as the application of these techniques to the modification of signal transduction in vitro and in vivo. Candidate must have experience in signal transduction in the nervous system, specifically involving protein kinases and a mastery of kinetic measurements. Experience in developmental studies in the nervous system including application of molecular biology techniques to developmental neurobiology is required, specifically, messenger RNA preparation and translation in vivo and in vitro. Duties will include membrane protein purification, production of monoclonal antibodies, immunohistochemistry, and injection of proteins into living cells in culture. Salary range: \$34,600 to \$43,200; level to be commensurate with experience. Please submit complete curriculum vitae, including list of publications and names of three references, by 30 October 1986 to: **Dr. Adrienne S. Gordon, Ernest Gallo Clinic and Research Center, San Francisco General Hospital, Building 1, Room 101, San Francisco, CA 94110. The University of California is an Equal Opportunity/Affirmative Action Employer.**

BIOCHEMISTRY/MOLECULAR BIOLOGY MEHARRY MEDICAL COLLEGE

TWO FACULTY POSITIONS are available in the Department of Biochemistry at the level of **assistant or associate professor** for well-trained or experienced candidates in biochemistry and molecular biology/molecular genetics. The department expects to fill these positions in the spring of 1987. **Positions are open until filled.** Successful applicants will be expected to develop and/or maintain a funded research program of high quality and to participate in the graduate and professional (medical, dental, and allied health) school teaching programs of the department. Applicants should send curriculum vitae, names of four individuals who may be contacted for reference, and a summary of research interests or ongoing projects to: **Ifeanyi J. Arinze, Ph.D., Chairman, Department of Biochemistry, Meharry Medical College, Nashville, TN 37208. Meharry Medical College is an Equal Opportunity/Affirmative Action Employer.**

CELLULAR/MOLECULAR NEUROENDOCRINOLOGIST

Seeking applicants for a tenure-track position in the Department of Biology to begin fall 1987. Candidates must have demonstrated a strong potential for independent research productivity and be capable of attracting external research support. Research area: mechanisms of hormone action at the cellular/subcellular level in the nervous system. Teaching responsibility will include courses in undergraduate and graduate curricula, especially endocrinology. Send curriculum vitae and names of three references to: **Dr. J. Rabi, Chair, Neuroendocrinology Search, Department of Biological Sciences, Rutgers University, P.O. Box 1059, Piscataway, NJ 08854, before 30 November 1986. Rutgers is an Affirmative Action/Equal Opportunity Employer.**

CHAIR IN CHEMISTRY VIRGINIA TECH

The Department of Chemistry at Virginia Polytechnic Institute and State University invites applications and nominations for the Harvey W. Peters Chair of Chemistry. This position is part of the Harvey W. Peters Research Center for the study of Parkinson's disease and disorders of the central nervous system, a newly established, privately endowed research component of the Department of Chemistry. Applicants will be expected to have a record of research accomplishment in the area of CNS drug design and synthesis, or related areas, consistent with appointment as full professor of chemistry.

Candidates should submit curriculum vitae, a summary of research plans, and three letters of reference to: **Professor James F. Wolfe, Head, Department of Chemistry, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061; telephone: 703-961-5966.** Closing date for receipt of applications is 1 December 1986.

Virginia Tech is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

BIOLOGY: Associate or Assistant Professor needed to teach upper level courses in cellular/molecular biology, microbiology, and/or multisection introductory biology; participate in M.A./M.S. degree programs; assist in developing undergraduate biotechnology program; advise students and serve on college committees. Minimum requirements: associate professor, doctorate degree in the field and 6 years of teaching experience (3 on college level). Assistant professor (doctorate preferred) master's degree in the field, 30 hours beyond and 3 years of full-time teaching experience. Full-time, tenure-track appointment. Salary: \$22,500 to \$34,000. Starting date: 1 September 1987. To apply, send letter of application and résumé by 19 December 1986 to: **Director, Affirmative Action, Worcester State College, Worcester, MA 01602-2597.** *An Affirmative Action/Equal Opportunity Employer complying with Title IX of the Federal Laws and the Rehabilitation Act of 1973.*

CELL BIOLOGIST. Department of Cell Biology and Anatomy of the Johns Hopkins Medical School has an opening for a faculty member with an active research program on molecular aspects of any interesting cellular, developmental, or physiological process. Faculty rank will be determined by experience. Teaching in cell biology or histology. Submit applications with curriculum vitae, summary of research interests, and names of references to: **Cell Biology Search, Department of Cell Biology and Anatomy, Johns Hopkins Medical School, 725 North Wolfe Street, Baltimore, MD 21205.**

CHAIR OF PHARMACOLOGY EASTERN VIRGINIA MEDICAL SCHOOL (EVMS)

The Eastern Virginia Medical School invites applications for the position of chairman of the Department of Pharmacology. The chairman is expected to provide strong leadership furthering the development of the department's research and teaching programs. The successful candidate will bring productive research programs coupled with a nationally preeminent record of research and research training in the areas of cellular/molecular pharmacology. These new programs should provide collaborative research links with other existing programs of excellence in basic science and clinical departments throughout the School of Medicine. Requirements include an earned doctorate (Ph.D., Sc.D., or M.D.) coupled with an established record of scholarly achievement in an academic setting. The Eastern Virginia Medical School is presently undergoing a period of vigorous new growth and development aimed at establishing and sustaining competitive programs in basic science and clinical research and research training. Strong leadership at the executive level coupled with the availability of significant, new financial resources is devoted to the development of an environment highly supportive of excellence in research and medical education. Send a letter of intent, current curriculum vitae, and a list of three personal references by 31 December 1986 to:

Dr. David E. Scott, Ph.D.
Chairman, Pharmacology Search Committee
Department of Anatomy and Cell Biology
Eastern Virginia Medical School
700 Olney Road, P.O. Box 1980
Norfolk, VA 23501

An Affirmative Action/Equal Opportunity Employer

CYTOGENETICIST

Abbott-Northwestern, an established, innovative hospital in the Minneapolis metropolitan area is seeking a director for its **Clinical Cytogenetics Laboratory**, a major component of its Perinatal Center. Major responsibilities include the supervision of the cytogenetic analyses of amniocytes and peripheral blood lymphocytes and the development of chorionic villus diagnoses. Further development in the pursuit of an independent research program is encouraged. Salary competitive and commensurate with experience.

Applicate must be Board-eligible/certified in cytogenetics by ABMG or CCMG. Send curriculum vitae and three references to:

The Perinatal Office
Attention: Search Committee
800 East 28 Street at Chicago Avenue
Minneapolis, MN 55407

POSITIONS OPEN

POSITIONS IN CELLULAR IMMUNOLOGY: Assistant Scientist and Postdoctoral level positions available to study molecular role of complement on macrophage effector functions. Applicants should have experience and interest in complement protein and receptor biochemistry and/or macrophage receptor-mediated effector functions. Private, internally funded, research foundation. Salaries competitive; full fringe benefits; possible permanent positions. Send curriculum vitae and research résumé to: **Richard W. Leu, Ph.D., Head, Immunology Section, Biomedical Division, The Samuel Roberts Noble Foundation, P.O. Box 2180, Ardmore, OK 73402.**

CHAIRPERSON DEPARTMENT OF ZOOLOGY MICHIGAN STATE UNIVERSITY

The Department of Zoology, Michigan State University, invites applications and nominations for the position of professor and chairperson of the department. Candidates should hold a Ph.D. in zoology or a related biological science and demonstrate excellence and leadership in research and teaching; previous administrative experience is desirable. The department seeks an individual who will provide academic leadership, promote a creative environment, and maintain effective working relationships with other units in the university. The department comprises 30 regular faculty engaged in diverse, well-funded research programs, with particular strengths in cell and molecular biology, ecology and evolutionary biology, neurosciences and behavior, and genetics. We maintain active ties with interdepartmental programs, the University Museum, and the Kellogg Biological Station. Applications with a current curriculum vitae, descriptions of research program, career objectives and academic and administrative philosophies, and the names of five (5) references should be submitted by 1 November 1986 to: **Dr. Guy L. Bush, Chair, Chairperson Review and Selection Committee, Department of Zoology, Michigan State University, East Lansing, MI 48824.** *An Equal Opportunity/Affirmative Action Employer.*

The position of **ASSOCIATE DEAN AND DIRECTOR OF COOPERATIVE EXTENSION** is available in the College of Agriculture and Home Economics, Washington State University, Pullman, Washington. Tenure will be granted in the appropriate department or unit. Applications and nominations are invited for this administrative position to provide leadership for the Cooperative Extension programs in Washington State. Applicants must have the doctorate degree in agriculture, home economics or related field, administrative experience, an understanding of extension and the land grant philosophy, and the ability to communicate and work effectively with people. Applications should include a complete curriculum vitae, names of five references, and should be received by 1 January 1987.

Send materials to:

Dr. J. R. Carlson, Chair, Search Committee
Department of Animal Sciences
Washington State University
Pullman, WA 99164-6310
Telephone: 509-335-5523

Washington State University is an Equal Opportunity/Affirmative Action Employer. Women, minorities, and disabled persons are encouraged to identify themselves as such in their applications.

THE SCHOOL FOR FIELD STUDIES INTERNATIONAL ENVIRONMENTAL EDUCATION FIELD DIRECTORS (3): WILDLIFE MANAGEMENT (NAIROBI, KENYA) MARINE MANAGEMENT (CARIBBEAN) NORTH/SOUTH AMERICA CONSERVATION BIOLOGY (BEVERLY, MA)

Will administer all aspects of undergraduate science program with four to six faculty at small field stations. Previous program management, 1 year on-site experience required. Ph.D., college level teaching/research in applied resource management preferable. N/S America Director based full-time in Beverly, MA; overseas directors 9 months at site, 3 months in Beverly. Salary \$20's (plus living expenses at overseas sites). Résumés to: **SFS, 376 Hale Street, Beverly, MA 01915.** *Equal Opportunity Employer.*

POSITIONS OPEN

CYTOGENETIC TECHNOLOGIST

Clinical testing laboratory located in Northern Virginia has an immediate position available for an individual with a B.A., B.S. or M.S. in biology, chemistry, or other life science and a minimum of 1 year of full-time cytogenetics laboratory experience. Our high volume Cytogenetics Department offers unique opportunities for studying rare and unusual chromosome abnormalities. Competitive salary with comprehensive benefits package offered. Qualified applicants are encouraged to contact: **The Personnel Department at telephone: 703-385-4830** or submit a résumé, including salary history, to: **American Medical Laboratories, Inc., 11091 Main Street, Fairfax, VA 22030.** *Equal Opportunity Employer.*

DEAN OF THE GRADUATE SCHOOL NORTH CAROLINA STATE UNIVERSITY

The university seeks a full-time administrator to provide leadership in graduate education, scholarship, and research. Responsibilities include: administering graduate programs; providing counsel for the further development of graduate education; facilitating interdisciplinary programs; and taking an innovative and aggressive role in seeking and developing external resources for the support of graduate programs.

The dean of the Graduate School should be a respected scholar, an innovative thinker, and an articulate spokesperson for graduate education and research. The dean will have a tenured appointment in an appropriate academic department, and will report to the provost and to the vice chancellor for research. There are 3500 graduate students enrolled in the university.

Applicants should have an earned doctorate, appropriate academic and administrative experience, and knowledge of external funding sources.

Deadline for applications and nominations is 31 October 1986.

Applications and nominations should be addressed to:

Mr. William H. Simpson
Secretary, Nomination Committee
Dean of the Graduate School
North Carolina State University
Box 7001
Raleigh, NC 27695

An Equal Opportunity/Affirmative Action Employer

DEAN THE SCHOOL FOR FIELD STUDIES

Dean will set and maintain academic and scientific research standards and agendas for undergraduate program integrating rigorous study in conservation biology with field research. Supervise four field directors, ten faculty and thirty part-time instructors.

Ph.D. in conservation biology, natural resource management, or related discipline. Candidate should be accomplished in budget administration, diplomacy (preferably with overseas experience), teaching at the college level, the publication of scientific research, and be a leader looking for a new challenge. Résumé and letter stating salary requirements to: **SFS, 376 Hale Street, Beverly, MA 01915.** *Equal Opportunity Employer.*

DIRECTOR OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER THE OHIO STATE UNIVERSITY

The Ohio State University is seeking applications and nominations for director, Ohio Agricultural Research and Development Center (OARDC). Major responsibilities include the planning, coordination, resource development, and implementation of research activities funded by federal, state, and nongovernment sources. An earned Ph.D. degree is required and the person must qualify for a tenured faculty appointment.

Nominations and letters of interest with pertinent supporting materials should be sent to: **Dr. Miller B. McDonald, Jr., Search Committee Chairperson, The Ohio State University, 116 Agricultural Administration Building, 2120 Fyffe Road, Columbus, OH 43210.** Telephone: 614-422-3897.

The search committee will begin reading dossiers 17 October 1986, and will continue to receive them until a candidate is selected.

The Ohio State University is an Equal Opportunity/Affirmative Action Employer.



For our Research Department we seek a

Nutritionist

To join an existing research group working in human nutrition and to develop methodology and a research program in trace elements.

To elaborate, implement and evaluate research projects in this fields.

Qualifications required

Sound training as a nutritionist, with PhD.

Post doctorate experience in human nutrition in the field of trace elements.

Please send detailed Curriculum Vitae to:
Mrs. M. Germanier-Audrin, Personnel Services, Nestlé,
CH-1800 Vevey, Switzerland.

Research Scientist Immunology

We're Praxis Biologics, a research-driven, results-oriented company recognized as a pioneer in the development of pediatric vaccines.

Working with our prominent staff of Research Scientists, you will be studying cellular and humoral immune responses to protein and polysaccharide antigens. You will utilize these test results to formulate strategies for developing vaccines that combat infectious diseases.

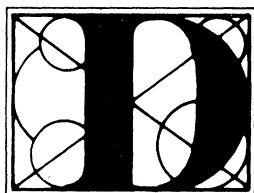
To qualify for this rewarding position, candidates should have a Ph.D. in Immunology or Biochemistry, and 3 or more years of research experience with peptides, T-Cell hybridomas and *in vitro* antibody responses.

Praxis Biologics offers a competitive salary and fine professional prospects in a company poised for substantial growth. For prompt, fully confidential consideration, please send your resume with salary requirements to: Praxis Biologics, Human Resources Department, 300 East River Road, Rochester, NY 14623.

PRAXIS BIOLOGICS

An equal opportunity employer, m/f.

Biotechnology Research In Infectious And Neoplastic Disease



What will you
discover
When you join Lederle?

Lederle Laboratories has the following positions available in its Medical Research Division, located 30 miles from New York City. The scientists will work closely with Lederle research personnel who are responsible for research programs involved in drug discovery.

Post-doctoral Research Fellowships

Our postdoctoral scientists are encouraged to pursue basic research goals within an industrial drug discovery environment. Publications and presentation of data at scientific meetings are essential components of the program.

Three postdoctoral positions are currently available for one year, extendable to a second year by mutual agreement. Candidates will have attained a Ph.D. in Biochemistry, Genetics, Microbiology, or Molecular Biology, and have experience in recombinant DNA methodology.

Two projects involve the characterization of antibiotic production genes from *Streptomyces*. One applicant should

have training in detailed genetic analysis using Northern hybridization, S1 nuclease mapping, and DNA sequencing techniques. The other candidate should have experience in bacteriophage genetics, and gram positive transformation and transfection techniques with the goal of constructing new strains capable of producing hybrid antibiotics.

The third position involves research on the regulation of the SOS response in *Bacillus*. A strong background in genetics of prokaryotes is essential.

Microbiologists/Molecular Biologists

Individuals with a BS/MS in Microbiology or Genetics with demonstrated skills in mutagenesis and screening, antibiotic bioassay technology, and HPLC analysis. Industrial experience, with gram-positive microorganisms or mode of action studies of antibiotics, is a plus but not essential.

Lederle offers competitive salaries, a comprehensive benefits package and a highly stimulating research environment. For consideration, please forward your CV to: Mrs. N. Levine, Medical Research Division, American Cyanamid Company, Lederle Laboratories, Pearl River, New York 10965. We are an equal opportunity employer m/f



**Dedicated People
Dedicated to People
Since 1906**

POSITIONS OPEN

DIRECTOR NATIONAL AIR AND SPACE MUSEUM

Applications are invited until 15 November 1986, for the position of director, National Air and Space Museum, Smithsonian Institution, Washington, DC. Candidate must be able to provide leadership for the world's largest museum devoted to aerospace history, science, and technology in the broadest sense. Reporting to the secretary and senior management of the institution, position entails both administrative and intellectual responsibility for the stewardship of major collections; research and publications activities; exhibitions and public outreach programs; and for representation and liaison with individuals and organizations in the fields associated with the museum. Candidate must possess a demonstrated record of achievement in their chosen field, and a proven record of administrative competence. Salary commensurate with experience and background. Send letter of interest and curriculum vitae to: **The Office of the Assistant Secretary for Research, Attention: National Air and Space Museum Directorship, Smithsonian Institution Building, Room 120, Washington, DC 20560.**

The Smithsonian is an Equal Opportunity Employer.

DIRECTOR ENVIRONMENTAL RESEARCH LABORATORY DULUTH, MN \$61,296 to \$66,232

U.S. Environmental Protection Agency (EPA) is seeking highly qualified candidates for the position of director, Environmental Research Laboratory, Duluth, MN. The director is responsible for the management of a research program on ecological systems, particularly to determine the exposure-effect relationships in freshwater ecosystems. Assists in the development of broad research policy and program guidelines and long-range research plans. Recommends specific projects and programs, including the resources and schedules required to accomplish them. Upon obtaining the resources, carries out the work either through its own facilities and field stations or under contract, cooperative agreement, or interagency agreement with other organizations.

To meet the requirements of the position, applicants must have research management experience and a bachelor's or higher degree in life sciences, physical sciences, or environmental engineering and must meet the **technical and executive qualifications** described in the vacancy announcement. Telephone or write for a copy of the vacancy announcement to: **Edna Morse, Environmental Protection Agency, SES and Executive Resources Unit, PM-224, 401 M Street, SW, Washington, DC 20460.** The telephone number is 202-382-3328.

Applications must be postmarked by 31 October 1986. *EPA is an Equal Employment Opportunity Employer.*

The Indiana University School of Medicine is seeking candidates for **DIRECTOR** of the Fort Wayne Center for Medical Education. Applicants or nominees must have an M.D. and/or Ph.D. degree with administrative and postgraduate teaching experience, preferably with research background. This is a full-time, faculty tenure-track position at Indiana University. The salary is negotiable. Send curriculum vitae to: **Dr. Douglas A. Triplett, c/o Dean's Office, Fesler Hall 302, 1120 South Drive, Indianapolis, IN 46223.** *Indiana University is an Equal Opportunity/Affirmative Action Educator, Employer, and Contractor, M/F.*

FACULTY POSITION—The University of Wisconsin Psychiatry Department in Madison is seeking a faculty member at the **assistant or associate professor** level as **DIRECTOR** of an eight-bed clinical research unit located in the VA Hospital. This position would have the opportunity for close research collaboration with other faculty members, participation in activities in the attached university hospital, as well as the opportunity to want to run one's own projects and protocols. We are seeking persons with strong interests and some experience in research. Both psychosocial and biologic interests are welcome. Please contact: **Dr. John R. Marshall, Professor and Chairman, Department of Psychiatry, 600 Highland Avenue, Madison, WI 53792; telephone: 608-263-6109.** *The University of Wisconsin is an Equal Opportunity Employer.*

POSITIONS OPEN

DIRECTOR OF PET SCANNING PROGRAM MINNEAPOLIS VA MEDICAL CENTER

The Minneapolis VA Medical Center seeks a director for its program in Positron Emission Tomographic Imaging. The new Minneapolis VA Medical Center under construction will house a time-of-flight PET imaging system along with a 40-MeV cyclotron for radiopharmaceutical production. The position of director will be filled by an M.D. and/or Ph.D. with an established research presence in the field and potential for further growth. The candidate for this position must have the capacity to build a viable PET imaging team and make PET scanning available to all those whose research and clinical needs it will benefit. Qualified candidates are encouraged to direct their inquiries to:

Rex Shafer, M.D.
Telephone: 612-725-6767, extension 6204
PET Search Committee, Chair
Chief, Nuclear Medicine Service (115)
VA Medical Center
54th Street and 48th Avenue South
Minneapolis, MN 55417
An Equal Opportunity Employer

DIRECTOR, MOLECULAR BIOLOGY SEQUENCING AND SYNTHESIS LABORATORY

The Pennsylvania State University Biotechnology Institute is seeking a person to direct the operation of its Molecular Biology Sequencing and Synthesis Laboratory. The laboratory is presently equipped with instrumentation for the synthesis of oligonucleotides and for the automated hydrolysis, derivatization, gas-phase based sequencing, and on-line analysis of peptides/proteins. Instrumentation for the automated extraction of nucleic acids, for the automated sequencing of DNA, and for peptide synthesis will be added shortly. Applicants should hold a Ph.D. or have extensive experience operating sequencing and/or synthesis instrumentation. The successful applicant will be expected to instruct students in the theory and operation of the instrumentation and to operate, maintain, and improve it. The position carries the academic rank of lecturer in molecular biology. Send curriculum vitae and three letters of recommendation to: **Dr. S. Edward Stevens, Jr., Associate Director, Biotechnology Institute, 101 South Frear Building, The Pennsylvania State University, University Park, PA 16802.** Closing date for receipt of applications is 3 November 1986. *Affirmative Action/Equal Opportunity Employer.*

EXTENSION SPECIALIST—Soil, Plant, and Water Analysis (headquarters: Davis Campus). **The University of California (UC), Division of Agriculture and Natural Resources, Cooperative Extension** is seeking a career-track academic candidate (i) to provide Extension programs to the agricultural diagnostic laboratory industry, (ii) to serve as director of two Extension laboratories and be responsible for development of laboratory procedures, training of laboratory personnel, and (iii) to work with Extension advisors and specialists in using diagnostic data. A minimum of Ph.D. in soil or plant science or related field with thorough training in analytical chemistry. Proven ability to conduct applied research, preferably field research. Laboratory experience with a minimum of 5 years of experience in soil, plant, and water analysis. Assure affirmative action in development and delivery of programs. Salary in the associate specialist rank. Contact: **Cooperative Extension Personnel, UC Berkeley, 94720. Telephone: 415-644-4320.** Close: 21 November 1986. Refer to number A-86-135. *Affirmative Action/Equal Opportunity Employer, M/F/H.*

FACULTY POSITION

Responsibilities include development of behavioral and physiological procedures based upon prior training and experience with animal and human experimentation, residential laboratory management, acquisition of research funding, and clinical studies of consummatory processes, including feeding and drug-taking. Teaching in medical school setting involving graduate and residency training experience required. Ph.D. and/or M.D. applicants send curriculum vitae and references by 17 October 1986 to: **Paul McHugh, M.D., Director, Department of Psychiatry and Behavioral Sciences, The Johns Hopkins University School of Medicine, Baltimore, MD 21205.** *Equal Opportunity/Affirmative Action Employer, M/F.*

POSITIONS OPEN

EVOLUTIONARY BIOLOGIST

The Department of Zoology of the University of Maryland seeks outstanding applicants for a tenure-track position of evolutionary biologist. Rank is open. Send curriculum vitae, statement of research interests, reprints, and names and addresses of three references to: **Evolutionary Biology Search Committee, Department of Zoology, University of Maryland, College Park, MD 20742,** by 15 November 1986.

An Affirmative Action/Equal Opportunity Employer.

EXECUTIVE DIRECTOR Triangle Universities Licensing Consortium of Duke University, North Carolina State University, and The University of North Carolina at Chapel Hill

The executive director of the Triangle Universities Licensing Consortium will manage and direct the consortium, which organization is charged with licensing technology developed at Duke, North Carolina State University, and The University of North Carolina at Chapel Hill. Major duties include technology licensing, management, and financial administration of the consortium.

Bachelor's degree in engineering or hard science required or demonstrated successful licensing experience. Advanced degrees preferred. Desirable experience includes three or more years in industry, preferably in high technology and in product marketing, manufacturing, or development areas; three or more years as a manager or supervisor; and two or more years in university administration.

Send letter of application, résumé, and three letters of reference by 17 October 1986, to:

Susan H. Ehringhaus
Assistant to the Chancellor
The University of North Carolina
at Chapel Hill
103 South Building 005A
Chapel Hill, NC 27514
Equal Opportunity/Affirmative Action Employer

UNIVERSITY OF MASSACHUSETTS AT AMHERST ANNOUNCES THREE TENURE-TRACK OPENINGS IN THE BROADLY DEFINED FIELDS OF STRUCTURAL GEOLOGY SOFT ROCK GEOLOGY GLACIAL GEOLOGY

Strong supplementary interests are desired in each field. Illustrative examples include tectonics, metamorphism, geophysics, Precambrian geology, Appalachian geology, organic geochemistry, low-mass isotopic geochemistry, fluid flow, stratigraphy, petroleum geology, modern ocean sediments, groundwater, and remote sensing.

Appointments are expected to be made at junior faculty levels; outstanding exceptions will be considered. Appointments will be reserved to those with Ph.D. in hand. The department is known for its strong field interests and seeks to support them with research excellence in new appointments. Salary commensurate with qualifications and experience. Applicants should make clear reference to the specific position sought and they should describe potential research and teaching interests. Applications and inquiries should be directed by 15 December 1986 to:

Geology Search (Structural, Soft Rock, or Glacial)
Department of Geology and Geography
University of Massachusetts
Amherst, MA 01003

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

FACULTY POSITION IN PHYSIOLOGY—Department of Physiology, Temple University School of Medicine, seeks a Ph.D. or M.D. to fill a 1-year, non-tenure-track position. Individual should demonstrate ability to do independent research and will be involved in medical and graduate level teaching programs. Salary is commensurate with experience. Send curriculum vitae to: **Dr. Peter R. Lynch, Department of Physiology, Temple University School of Medicine, 3420 North Broad Street, Philadelphia, PA 19140.** *Equal Opportunity/Affirmative Action Employer.*

ASSISTANT /ASSOCIATE RESEARCH SCIENTIST

The Bristol-Myers Company is a leader in industrial biotechnology and a major international manufacturer of pharmaceutical products. We currently have a challenging research opportunity in our Genetic Engineering Department for a scientist to provide support to our Genetic Microbiology Research program.

Responsibilities include the development of microbial strains that produce novel antibiotics or increased titers of current antibiotics through rational genetics and/or molecular manipulations. The successful candidate must have a BS or MS in Molecular Biology or related discipline and a strong background in gene cloning. Additional experience in the molecular biology of streptomycetes and fungal microorganisms is desirable.

We offer a competitive salary, excellent benefits and a professional environment conducive to growth. For prompt, confidential consideration, forward your resume with salary history and requirement, to: **MANAGER OF EMPLOYMENT**



BRISTOL-MYERS COMPANY INDUSTRIAL DIVISION

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

An equal opportunity employer M F H V

Staff and Senior Scientist Positions

The Endocrine and Reproductive Biology Group of the Worcester Foundation for Experimental Biology is recruiting both junior and senior level faculty.

The Worcester Foundation is committed to an active interdisciplinary approach to the biological sciences. Talented individuals in all areas of endocrine and reproductive biology, as well as those in other disciplines with an active interest in reproductive and endocrine problems are encouraged to apply. We offer liberal institutional start-up funds and competitive salaries.

Current areas represented include: Molecular endocrinology; reproductive physiology; neuroendocrinology; gametogenesis and fertilization; membrane biochemistry and biophysics; peptide hormone, steroid, and prostaglandin biochemistry.

The Foundation is situated on a wooded 100 acre campus only a few minutes from the University of Massachusetts Medical Center and in close proximity to all major New England academic and research institutions. Send resume, a statement of research plans and interests and the names of at least three references to: **Endocrine and Reproductive Biology Group, C/O Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545, USA.**



WORCESTER FOUNDATION FOR EXPERIMENTAL BIOLOGY

An Equal Opportunity Affirmative Action Employer M F H V

Cereal Geneticist— Biotechnologist

INTERNATIONAL CROPS RESEARCH INSTITUTE
FOR THE SEMI-ARID TROPICS (ICRISAT)
immediately needs a



Cereal Geneticist—Biotechnologist at Hyderabad, India

The person will develop efficient methods to transfer genes across sterility barriers between the cereals—pearl millet and sorghum—and their wild relatives, and will produce doubled haploids from anther cultures. Gene transfer will initially involve overcoming barriers to fertilization and the rescue of hybrid embryos, but is expected to develop into more elaborate methods of exogenous gene transfer as techniques become available. The selected candidate will work in close cooperation with scientists from Cereal Agronomy, Breeding and Plant Protection, and the Genetic Resources and Biochemistry Units and to cooperate with national and international biotechnology programs in exchange of ideas and new technologies. Essential qualifications: doctorate in Plant Sciences with at least 2 years postdoctoral experience in tissue culture and ability to work with national and international scientists from a range of disciplines. Excellent command of English is also essential. Desirable qualifications: Experience in protoplast fusion, direct transformation of protoplasts and cytology, and working knowledge of at least one foreign language, preferably French, German, or Italian. Salary at principal staff level, according to qualifications and experience. The position will be initially for 2 years, with possibility of extension. The appointee will be based at the ICRISAT Center, Patancheru, 30 km NW of Hyderabad, India. Hyderabad is accessible by air to international airports and has good living conditions, recreational, and medical facilities. Educational facilities exist for children to the age of twelve.

Send resumé, including present salary level, and names of three references to:
**Director General,
ICRISAT Patancheru, P.O., A. P. 502 324, India**
Within 60 days from the date of advertisement.

POSITIONS OPEN

FACULTY POSITION IN MOLECULAR OR CELLULAR IMMUNOLOGY WEST VIRGINIA UNIVERSITY MEDICAL CENTER

The Department of Microbiology of the West Virginia University School of Medicine announces a full-time, tenure-track position opening at the assistant or associate professor level. The department invites applications from candidates with active research interests in molecular or cellular immunobiology. West Virginia University offers the benefits of an enthusiastic and growing medical research center in the scenic foothills of the Appalachian Mountains. The medical school faculty currently includes immunologists engaged in research in developmental, molecular, clinical and respiratory immunology; immunopathology, immunopharmacology, neuroimmunology, rheumatology, and immunology of allergy and infectious disease. In addition, the Mary Babb Randolph Cancer Center is currently under development at West Virginia University and a joint appointment in that facility is possible for candidates with interests in cancer research. Candidates should hold a Ph.D. or equivalent degree in microbiology or related area and have a minimum of 2 years of postdoctoral experience. The successful applicant will be expected to establish and maintain a strong extramurally funded research program and participate in medical and graduate student teaching programs in the department.

Applicants should submit their curriculum vitae, summary of research interests, and names of at least three persons who will serve as professional references to: **Dr. Irvin S. Snyder, Chairman, Department of Microbiology, West Virginia University Medical Center, Morgantown, WV 26506.** Deadline for receipt of applications is 1 December 1986. *West Virginia University is an Affirmative Action/Equal Opportunity Employer.*

Tenure-Track FACULTY POSITION: STATE UNIVERSITY OF NEW YORK (SUNY) AT STONY BROOK. Applications invited for faculty positions in the Department of Pharmacological Sciences at rank of assistant or associate professor. Ph.D. and/or M.D. degree with strong commitment to basic research. Research interests relating to genetic toxicology especially encouraged; other fields of biochemical pharmacology, neuropharmacology, and toxicology also considered. Application, curriculum vitae, synopsis of current research interest, list of publications, names of four references by 17 October 1986 to: **Dr. Arthur Grollman, Chair, Department of Pharmacological Sciences, School of Medicine, HSC, SUNY-Stony Brook, Stony Brook, NY 11794-8651.** *SUNY-Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK number 203.*

PROGRAM IN MOLECULAR BIOLOGY AND BIOTECHNOLOGY THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Tenure-track FACULTY POSITIONS IN MOLECULAR BIOLOGY: The areas of interest include, but are not limited to, in vitro mutagenesis as applied to protein structure and function, and development of gene transfer systems. Faculty rank and departmental affiliation will be determined by the applicant's credentials and research interests. Send curriculum vitae, the names of three references, and a research plan to: **Marshall H. Edgell, Director, Program in Molecular Biology and Biotechnology, 402 Swing Building 217H, University of North Carolina, Chapel Hill, NC 27514.** *Affirmative Action/Equal Opportunity Employer*

HUMAN GENETICIST, M.D. OR M.D./Ph.D., Board-eligible with research program in molecular biological approaches to inherited disease. Rank and salary commensurate with qualifications. Salary, start-up support for research, and protected research time assured. Appointment shared by Departments of Pediatrics and of Human Biological Chemistry and Genetics. Applications to: **David Rassin, Department of Pediatrics, University of Texas Medical Branch (UTMB) at Galveston, TX 77550.** *UTMB is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

FACULTY POSITION IN ORGANIC CHEMISTRY AT IOWA STATE UNIVERSITY

Applications are invited for this position which will become available either January 1987 or summer 1987. All research areas in organic chemistry will receive consideration. The appointment probably will be at the level of assistant professor, however, applications at all levels will be considered. Candidates with outstanding potential for, and commitment to, excellence in both research and teaching are sought to join a faculty with a strong tradition of research in organic chemistry. Applicants should submit curriculum vitae, transcripts, a documented summary of past accomplishments, and an explicit statement of research plans and teaching objectives to: **Professor D. K. Hoffman, Chemistry Department, Iowa State University, Ames, IA 50011.** Junior applicants also should arrange for at least three letters of recommendation to be sent. *Women and minority applicants are encouraged to apply. Iowa State University is an Affirmative Action/Equal Opportunity Employer.*

THE DEPARTMENT OF ANATOMY, MICHIGAN STATE UNIVERSITY (MSU) invites applications for a full-time, tenure-track position available 1 July 1987. Applicants must have a D.V.M., or D.V.M./Ph.D., or its equivalent and postdoctoral experience. Preference will be given to candidates with scholarly productivity and funding potential in an area linking cell biology or neurobiology with veterinary science. The successful candidate will participate in the department's small and large animal veterinary gross anatomy teaching programs. Rank open (assistant, associate, or full professor); salary to be commensurate with qualifications. Applicants should reference position number VM295E and send curriculum vitae, reprints, and names of three references by 1 January 1987 to: **Dr. Lawrence M. Ross, Chairman Search Committee, Department of Anatomy, A514 East Fee Hall, Michigan State University, East Lansing, MI 48824-1316.**

MSU is an Affirmative Action/Equal Opportunity Institution.

FACULTY POSITION TOXICOLOGY

The Department of Medicine at Jefferson Medical College has a position available at the level of assistant professor. The successful candidate will have completed at least one postdoctoral fellowship and will have published research papers in carefully reviewed journals. The new faculty member will join a combined basic science and clinical science research group studying both naturally occurring and environmental toxins. The new faculty member will be expected to develop a vigorous research program that meshes well with existing programs, but which can be independent in nature. Special consideration will be given to candidates studying toxins (parent compounds or reactive metabolites) that act on the nervous system. Financial support is available both for salary and for equipment. Interested persons should submit a brief statement of their research interests, curriculum vitae, a list of publications, and the names of three persons who can provide letters of reference. These materials should be forwarded to: **Dr. Lance L. Simpson, Professor of Medicine and Pharmacology, Jefferson Medical College, 1025 Walnut Street, Philadelphia, PA 19107.** *Equal Opportunity Employer.*

ASSISTANT PROFESSOR

Vanderbilt University—Applications are invited for a **FACULTY POSITION** in organic chemistry. The appointment will be tenure-track, at the level of assistant professor beginning September, 1987. Candidates should already have significant research achievements; we are especially interested in chemists showing exceptional promise of developing vigorous, innovative, well-funded research programs. The candidates must also have the desire and ability to be stimulating teachers of undergraduate and graduate students. Applicants should submit transcripts, curriculum vitae, a list of publications, an outline of plans for future research, and at least three letters of recommendation to: **Professor Thomas M. Harris, Department of Chemistry, Box 1715-B, Vanderbilt University, Nashville, TN 37235.** Applications should be submitted as soon as possible, but will be accepted until the position is filled. *Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

The Department of Ecology and Evolutionary Biology, University of California, Irvine (UCI), announces a new tenured (Associate Professor) or tenure-track (Assistant Professor) position for a **PLANT POPULATION ECOLOGIST.** We seek candidates with a balance between theory and experimentation, and whose research deals with the ecology and evolution of reproductive strategies in plants. Candidates with a genetic component to their studies will be welcome. We are looking for candidates only of exceptional merit, and postdoctoral experience is required. *UCI is an Equal Opportunity/Affirmative Action Employer.*

Please send letter of application, curriculum vitae, reprints (published) or manuscripts (in press) of key publications, statement of research interests and goals, and names, addresses, and telephone numbers of four references to:

**Search Committee
Department of Ecology and Evolutionary Biology
University of California
Irvine, CA 92717**

Candidates should arrange for references to submit letters of evaluation directly to the search committee.

Deadline for receipt of application and letters is 1 December 1986.

The Department of Ecology and Evolutionary Biology, University of California, Irvine (UCI), announces the reopening of a search for a **THEORETICAL EVOLUTIONARY ECOLOGIST** to join an expanding department at the tenure-track level of **assistant professor.** While the intent is to recruit a pure theorist to interact with our core of more empirically oriented evolutionary biologists (quantitative genetics, microbial coevolution, life history, and genetic systems evolution), we will also welcome candidates whose theoretical studies are integrated with empirical research. The department's goal is to encompass studies of microbial, animal and plant systems, and candidates focusing on any of these or at their interfaces will be welcome. We are looking for persons only of exceptional merit, and postdoctoral experience is required. *UCI is an Equal Opportunity/Affirmative Action Employer.*

Please send letter of application, curriculum vitae, reprints (published) or manuscripts (in press) of key publications, statement of research interests and goals, and names, addresses, and telephone numbers of four references to:

**Search Committee
Department of Ecology and Evolutionary Biology
University of California
Irvine, CA 92717**

Candidates should arrange for references to submit letters of evaluation directly to the Search Committee.

Deadline for receipt of application and letters is 1 December 1986.

HEAD, LABORATORY OF MOLECULAR BIOLOGY

The Pulmonary Medicine Section, Department of Internal Medicine, is recruiting an individual to be head, Laboratory of Molecular Biology. Applicants should have a Ph.D. in biological sciences and have demonstrated the ability to organize a scientific program. Contact: **Stephen I. Rennard, Pulmonary Section, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, NE 68105.** *The University of Nebraska is an Affirmative Action/Equal Opportunity Employer.*

Tenure-track position available as of September 1987, for an **IMMUNOPARASITOLOGIST** or **MOLECULAR BIOLOGIST** using HELMINTHS as research material and familiar with this group of animals. Duties include teaching an undergraduate course in parasitology and one other cell or invertebrate zoology course per year, and maintaining a vigorous research program, including supervision of graduate students. Salary commensurate with experience. Applicants with postdoctoral experience should send their curriculum vitae, with reprints of representative publications, and a list of at least three referees to: **Dr. Christopher Woodcock, Chairman, Parasitology Search Committee, Department of Zoology, Morrill Science Center, University of Massachusetts, Amherst, MA 01003.** Deadline for receipt of applications is 31 October 1986. *An Affirmative Action/Equal Opportunity Employer.*

STATE UNIVERSITY OF NEW YORK AT BUFFALO BIOLOGICAL SCIENCES—FACULTY OPENING

ASSISTANT PROFESSORSHIP: Our goal is to hire a person whose research program is in the forefront of his/her field, who can interact with other members of our faculty. Serious candidates will be expected to be utilizing modern genetic and molecular approaches to the study of one of the following areas: (a) the *immune system* at the cellular level, (b) the development of an organism which provides a model system for studies in *development*, or (c) regulation in an organism to provide a model for studies of regulation at the level of *gene transcription*.

Successful candidates will be expected to have completed at least two to three years of post-doctoral experience, demonstrate experience in a productive research program, be able to describe in detail plans for future research activities, and show promise for establishing a fundable independent research program.

Candidates will also be expected to demonstrate above average teaching ability for both undergraduate and graduate teaching. *Salary will be nationally competitive; excellent laboratory space and equipment available.*

To apply, candidates must submit a curriculum vitae, including a statement of research background and teaching experience, and at least *three letters of reference*, to **Dr. Darrell Doyle, Chairman, Department of Biological Sciences, 109 Cooke Hall, State University of New York at Buffalo, Buffalo, NY 14260**. Application deadline is December 15, 1986.

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

ROCKEFELLER FOUNDATION BIOTECHNOLOGY CAREER FELLOWSHIPS

The Rockefeller Foundation announces a program of career development fellowships designed to enable scientists from developing countries, trained at outstanding centers for advanced research in biotechnology, to continue to work at those or other institutions for three months each year, over a period of at least three years, conducting advanced research and keeping abreast of new developments in their fields. The program will focus upon the development and application of advances in molecular and cellular biology and immunology relevant to agriculture, health, and reproductive biology.

Funding will be shared between the Foundation and the host laboratory, with the Foundation providing travel and per diem support. It is hoped that the fellowships will encourage the establishment of ongoing working relationships between outstanding younger scientists working at third world institutions, and research teams at advanced laboratories.

Applicants to this program should have at least Ph.D.- or M.D.-level training, a proven record of scientific productivity, and a permanent position at a research or teaching institution in their home country. A written project proposal must be developed and submitted jointly by the candidate and the laboratory sponsor.

Information about application procedures can be obtained by writing to **Biotechnology Career Fellowships, Fellowship Office, Rockefeller Foundation, 1133 Avenue of the Americas, New York, New York 10036, USA**.

NATIONAL INSTITUTES OF HEALTH, PUBLIC HEALTH SERVICE DEPARTMENT OF HUMAN AND HEALTH SERVICES

OPENING DATE: October 1, 1986—CLOSING DATE: October 31, 1986

(All applicants must be postmarked before closing date)

DEPUTY DIRECTOR FOR EXTRAMURAL RESEARCH AND TRAINING, NIH

The National Institutes of Health (NIH) invites nominations and applications for the position of Deputy Director for Extramural Research and Training, NIH. This is a Civil Service position in the Senior Executive Service (SES) with a salary range of \$61,296 to \$68,700 per annum. The person selected may be eligible for Physicians Comparability Allowance of \$10,000 per year. A one-year probationary period must be served if the individual selected is not currently in the SES.

The Deputy Director for Extramural Research and Training provides overall leadership on all matters relating to the substance, quality and effectiveness of the NIH extramural research and training grant and awards activities and research facilities programs.

In addition, incumbent of this position has the overall responsibility for the planning, execution and direction of the NIH extramural research and training grants programs.

Candidates must meet the following mandatory professional and mandatory managerial qualifications.

Professional: (1) meet the minimum educational requirements for Health Scientist Administrator, GS-601, or Medical Officer, GS-602, (or equivalent combination of experience and training) as defined by U.S. Office of Personnel Management Handbook, X-118, Qualification Standards for Position under General Schedule; (2) have progressive experience in and knowledge of NIH extramural programs and policies; (3) awareness of current issues and problems in biomedicine; (4) an understanding of problems confronting research institutions (especially research-oriented institutions of higher education); (5) stature in a relevant biomedical discipline; (6) judgement, leadership, and executive abilities.

Managerial: Experience in leadership positions that has demonstrated competence in (1) assuring that agency and/or other organizational goals and priorities are considered in carrying out the functions

and responsibilities of the organization; (2) establishing and maintaining relationships with key individuals and groups outside the organization; (3) directing and guiding programs and projects, including long-term and short-term planning, and establishing objectives and priorities; (4) establishing procedures for the development of the organization's budget, and allocating fiscal and personnel resources to support program implementation; (5) developing processes and overseeing activities to assure fair and equitable employment of qualified persons, and implementing EEO objectives; (6) developing and implementing procedures for monitoring program performance, including periodic analysis of evaluation; (7) innovative capabilities in the management and administration of biomedical research activities.

Candidates who meet the mandatory qualifications will be further evaluated on the following factors: extent to which managerial qualifications exceed the mandatory level; communications and interpersonal skills; training and education; honors and awards; and scientific recognition/peer recognition.

Further information about the position and qualification requirements may be obtained by calling Helen C. Stafford at (301) 496-4197. Applications (SF-171, Personal Qualifications Statement) accompanied by a current curriculum vitae and bibliography should be submitted to:

**Helen C. Stafford, Executive Secretary
Search Committee for Deputy Director for Extramural
Research and Training
National Institutes of Health
Shannon Building, Room 19
Bethesda, Maryland 20892**

Applications from women and/or minority group members are especially solicited.

A NEQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

FLOW CYTOMETER OPERATOR Life Science Research Assistant II/III Department of Biological Sciences Stanford University

Responsibilities involve highly sophisticated methods development and data interpretation for biological research involving a Coulter EPICS 753 flow cytometer. Duties include the use of independent initiative and theoretical judgment in the choice of appropriate methods and supervision of instrument maintenance. The research assistant will research the development of new techniques and uses of flow cytometry in various areas of the biological sciences, as well as provide instruction on use of the instrument. Serving as a special resource, the research assistant will act as a consultant to investigators in their use of the flow cytometer, supervise and schedule the use of the instrument, and ensure proper collection and handling of the data. Responsibilities also include maintaining a familiarity with current literature, performing literature searches for manuscript preparation, and providing original research contributions.

Candidates should have a masters of science in molecular biology or related field and/or equivalent experience in flow cytometry theory and instrumentation. Individual should have the theoretical knowledge and interpersonal skills necessary for supervising and interacting with a variety of users (graduate students, postdoctoral fellows, and faculty). Candidates should also have organizational and supervisory skills necessary for scheduling users and for supervising the proper maintenance of the instrument.

Applicants should send résumés to: **Dr. Robert T. Schimke, Department of Biological Sciences, Stanford University, Stanford, CA 94305.** *Stanford University is an Equal Opportunity Employer.*

HEALTH RISK ASSESSMENT SCIENTIST

Individual needed to work on a growing interdisciplinary team performing exposure, hazardous waste site risk and Superfund endangerment assessments, and other site-specific risk assessments. Presentation of results in clear and concise reports and proposal preparation is a must. Position requires an advanced degree in health/life sciences, experience in toxicology, epidemiology, and public health, and at least 2 years of demonstrated experience in the performance of multimedia human health risk and exposure assessments and integration of such results with containment, fate, and transport analyses. Ability to interact with and support other technical disciplines is also necessary.

TOXICOLOGIST

Individual needed to provide toxicological experience to site-specific exposure risk and endangerment assessments who has knowledge in calculating contaminant intakes and acceptable daily doses. Must possess ability to review and evaluate environmental data and write clean, concise, and defensible reports on their interpretations. Preparation of proposals will also be a must. Position requires a Ph.D. in toxicology, biochemistry, or epidemiology with experience in proposal preparation, and risk assessment. Ability to coordinate with other technical disciplines in project and proposal work is necessary.

Interested applicants who want a challenging, demanding yet rewarding work environment, in an employee-owned company, should submit their résumé to:

**ENVIRONMENTAL SCIENCE AND
ENGINEERING, INC.**
P.O. Box ESE, Department S926
Gainesville, FL 32602

INSTRUCTOR/POSTDOCTORAL ASSOCIATE

Position available to study physiological regulation of gene expression in striated muscle with a laboratory skilled in quantitative morphology. Current research methods include in situ hybridization of mRNA and immunoelectron microscopy of contractile proteins. Colleagues within the department measure calcium signals and use patch clamp on membranes. Background in molecular and cell biology preferred. Send curriculum vitae and list of three references to: **Brenda R. Eisenberg, Ph.D., Department of Physiology, Rush Medical College, 1750 West Harrison, Chicago, IL 60612.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

The Department of Pathology seeks to recruit an experienced, Board-certified M.D. **LABORATORIAN** to direct the clinical laboratories in the **University Hospital, St. Louis University Medical Center.** The laboratories encompass a full range of services including chemistry, RIA, microbiology, blood bank, hematology, and coagulation. The laboratory is fully computerized and a program of extensive renovation has recently been initiated as a component of a major hospital building program. An active research program and interest in teaching medical students and residents will be important considerations in the selection of a director. It is expected that the successful candidate would be eligible for a tenure-track appointment at the level of associate professor or professor in the Department of Pathology. Interested candidates are invited to write to: **Dr. David Lagunoff, Department of Pathology, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, MO 63104.** Please include curriculum vitae and names of 2 to 3 references. *Equal Opportunity Employer, M/F/H/V.*

MOLECULAR BIOLOGIST with experience in methods of recombinant DNA for research and diagnosis program related to neurologic and neuromuscular diseases of unknown gene product. Rank and salary appropriate to experience. Collaborate with active groups investigating myopathies, movement disorders, and dementia. Interested parties, please send curriculum vitae to: **Timothy A. Pedley, M.D., Chairman, Committee on Appointments and Promotions, The Neurological Institute, 710 West 168 Street, New York, NY 10032.** *Columbia University takes Affirmative Action to ensure Equal Opportunity.*

MOLECULAR BIOLOGIST/BIOCHEMIST

Candidate must have a broad-based background in biochemistry with an emphasis on recombinant DNA technology and an expertise in the expression of viral glycoprotein genes. A working knowledge of bacterial, yeast, and mammalian cell expression systems is essential as is experience with respiratory viral pathogens. This position requires a Ph.D. in molecular biology or biochemistry and at least 3 years of relevant postdoctoral experience. Salary \$37,500 to \$40,000. Interested applicants should send résumé to: **Human Resources Department, Praxis Biologics, 30 Corporate Woods, Suite 300, Rochester, NY 14623-1493.**

MOLECULAR BIOLOGIST (EUKARYOTIC)

The Biology Department, Creighton University, seeks a person who uses modern molecular approaches in a traditional biological subdiscipline. The successful candidate must hold a Ph.D. degree, have a commitment to independent, continuing research, and an enthusiastic instructional program. Initially, the candidate will be responsible for presentation of contemporary nucleic acid methodology in an upper-division laboratory course. Future participation in the introductory general biology course is anticipated. The normal teaching load is four courses per academic year. Participation in the graduate program (M.S.) is requisite.

This tenure-track, 9-month appointment will be at the assistant professor level. Summer teaching is optional. Application materials must be received by 7 November 1986. Applicants should send curriculum vitae, transcripts, and the names and addresses of three references to:

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

Creighton University is an Affirmative Action/Equal Opportunity Employer.

Department of Pharmacology, University of California, San Francisco. POSTDOCTORAL ASSOCIATE position available immediately to study ion channels in mammalian central neurones with patch clamp methods. Experience in electrophysiology required. Send copy of curriculum vitae, details of research experience, and names of references to: **Dr. Jeffrey B. Lansman, Department of Pharmacology, School of Medicine, University of California, San Francisco, CA 94143.**

POSITIONS OPEN

MOLECULAR GENETICIST PORTLAND, OREGON

A tenure-track assistant professorship is available for a person with at least 2 years of postdoctoral experience and research interests in the area of gene regulation of eukaryotic cells or viruses. Candidates should be committed to developing and maintaining a strong, funded research program and actively participating in undergraduate and graduate teaching. A growing research environment provides excellent opportunities for collaboration with scientists in this university and in nearby medical and graduate research institutions. Position to be filled by 16 September 1987. Please submit curriculum vitae, three letters of recommendation, and description of academic interests and future research plans before 31 October 1986 to: **Dr. Robert L. Millette, Search Committee Chairman, Department of Biology, Portland State University, P.O. Box 751, Portland, OR 97207.** *Portland State University is an Equal Opportunity/Affirmative Action Employer; qualified minorities, women are encouraged to apply.*

MOLECULAR GENETICS/STRUCTURAL BIOLOGY POSTDOCTORAL POSITION available immediately to join a group investigating the relationship between enzyme structure and function by site-directed mutagenesis and x-ray crystallography. Requires a strong background in molecular biology and/or enzymology. Salary commensurate with experience. Please send curriculum vitae, representative reprints, and the names of three references to: **Dr. David A. Agard, Department of Biochemistry and Biophysics, University of California, San Francisco (UCSF), San Francisco, CA 94143-0448.** *UCSF is an Equal Opportunity/Affirmative Action Employer.*

PEDIATRIC NEPHROLOGY FELLOW DEPARTMENT OF PEDIATRICS CEDARS-SINAI MEDICAL CENTER LOS ANGELES, CA

PEDIATRIC NEPHROLOGY FELLOW: Cedars-Sinai Medical Center, a 1015-bed, acute-care, research and teaching hospital affiliated with the University of California, Los Angeles (UCLA), School of Medicine, is seeking candidates for fellowship in pediatric nephrology. The program offers comprehensive training in all aspects of pediatric nephrology, but will give preference to applicants who seek intensive focused training in laboratory investigation leading to a career as an independent clinical investigator. Interested individuals should send their curriculum vitae and three letters of reference to:

**Dr. Stanley C. Jordan, Director
Pediatric Nephrology and
Transplantation Immunology
Cedars-Sinai Medical Center
Room 4310, 8700 Beverly Boulevard
Los Angeles, CA 90048**

Cedars-Sinai Medical Center is an Equal Opportunity Employer.

PEDIATRIC IMMUNOLOGIST DEPARTMENT OF PEDIATRICS CEDARS-SINAI MEDICAL CENTER LOS ANGELES, CA

PEDIATRIC IMMUNOLOGIST: Cedars-Sinai Medical Center, a 1015-bed, acute-care, and research and teaching hospital affiliated with the University of California, Los Angeles (UCLA), School of Medicine, seeks an academically oriented individual to establish and direct the new Pediatric Immunology Division. The successful candidate would be expected to develop productive programs in research, teaching, and clinical services. Interested individuals should send their curriculum vitae and three letters of reference to:

**David L. Rimoin, M.D., Ph.D.
Director, Department of Pediatrics and the
Medical Genetics-Birth Defects Center
Cedars-Sinai Medical Center
Room 4310, 8700 Beverly Boulevard
Los Angeles, CA 90048**

Cedars-Sinai Medical Center is an Equal Opportunity Employer.

POSITIONS OPEN

MOLECULAR BIOLOGIST/MICROBIOLOGIST. Associate/assistant professor; tenured or tenure-track position with 90 percent research and 10 percent teaching. Candidates must have a strong research record in recombinant DNA technology, including gene cloning and expression. Must be able to apply molecular approach to livestock disease research with emphasis on infectious diseases and immunology of enteric and respiratory systems. Will present graduate lectures or courses and advise graduate students. Department has excellent research and animal isolation facilities. Ph.D. and appropriate postdoctoral experience required. Apply with current curriculum vitae, three letters of reference, and a summary of research interests by 1 November to: **John A. Schmitz, Head, Department of Veterinary Science, University of Nebraska-Lincoln, Lincoln, NE 68583-0905. Telephone: 402-472-2952. Affirmative Action/Equal Opportunity Employer.**



PHARMACOLOGIST/BIOCHEMIST

Nova Pharmaceutical Corporation has an immediate opening for a pharmacologist/biochemist with a minimum of 2 years of postdoctoral experience. The ideal candidate would be familiar with pulmonary/respiratory pharmacology. Exposure to in vitro and in vivo bioassays of pulmonary function including the techniques used for studying the release and actions of allergic mediators would be very helpful. Additional experience with in vitro receptor binding, second messenger, and enzyme assays is especially desirable.

Nova occupies new facilities at the Francis Scott Key Medical Center in Baltimore, and has strong intracampus links with The Johns Hopkins University, the National Institute for Drug Abuse, and the National Institute of Aging. Nova has a full complement of chemical, biochemical, and pharmacological support personnel.

Nova offers competitive salaries and an excellent benefits package. Interested individuals should send résumé to:

**Personnel Department
NOVA PHARMACEUTICAL CORPORATION
5210 Eastern Avenue
Baltimore, MD 21224-2788
An Equal Opportunity Employer**

PHYSIOLOGIST

Applications are invited for a full-time, tenure-track teaching position. Responsibilities, which will begin 15 August 1987, include general and cellular biology and upper-level physiology courses. Summer stipends and limited start-up funding are available for research. The college is a small, state supported, liberal arts, coeducational, primarily residential institution located 50 miles south of Washington, DC. Candidates should have a Ph.D. and a strong commitment to undergraduate teaching. Closing date: 15 November 1986. Please send curriculum vitae, three letters of reference, and transcripts to: **Dr. Stephen W. Fuller, Chairperson, Department of Biological Sciences, Mary Washington College, 1301 College Avenue, Fredericksburg, VA 22401-5358. Equal Employment Opportunity/Affirmative Action Employer.**

PLANT MOLECULAR/CELLULAR BIOLOGIST

The Institute of Molecular Biology of the University of Oregon intends to fill a tenure-track position for fall, 1987 in cellular/molecular biology, probably at the assistant professor level, although senior scientists will be considered. Preference will be given to candidates using molecular/genetic approaches to understand basic cellular mechanisms in plants, but other research areas are not ruled out. Teaching will likely be in the Department of Biology although affiliation with the Department of Chemistry is possible. Applications including curriculum vitae with a summary of research goals should be sent to: **Dr. Vicki Chandler, Department of Biology, University of Oregon, Eugene, OR 97403. The closing date is 15 November 1986. The University of Oregon is an Equal Opportunity/Affirmative Action Employer.**

SCIENTIST

Bristol-Myers U.S. Pharmaceutical and Nutritional Group located in Evansville, Indiana, has a laboratory research opportunity available for a Scientist in Nutritional Research and Development. The successful applicant will participate in a multidisciplinary program aimed at identifying and developing new product concepts.

To qualify, you should possess a Ph.D. in Biochemistry, Immunology, Biology, or closely related field, combined with at least two years postdoctoral research experience in protein characterization and modification, immunochemistry, or biochemical infectious disease.

We offer a competitive starting salary and a comprehensive benefit program along with a research environment which is conducive to professional growth and development.

For prompt, confidential consideration, forward resume and salary requirements to:

**Bristol-Myers USPNG
Department 6A02
2404 Pennsylvania Street
Evansville, IN 47721**

An Equal Opportunity Employer M/F/H/V

FLINDERS UNIVERSITY OF SOUTH AUSTRALIA

RESEARCH FELLOWSHIP—SCHOOL OF MEDICINE

Applications are invited from suitably qualified persons for a research fellowship tenable within any of the fields represented in the School of Medicine of the University. The Research Fellowship, which will be available from November 1986, is tenable initially for one year, but would be extended for a second year following a satisfactory progress report. Applicants should have completed a Ph.D. degree prior to taking up the appointment or have equivalent research experience. The School is particularly interested in individuals who have established a record of research excellence during a previous postdoctoral fellowship and who are interested in pursuing a long term research career within the School of Medicine. Persons with less substantial research experience, including those about to receive a Ph.D., are also encouraged to apply.

The appointment will be made according to qualifications and experience normally within the salary range of A\$24,013 to \$27,507. Outstanding applicants may be appointed at a higher level. A contribution will be made towards the travel costs of the fellow and his/her dependents in taking up the Fellowship. Further details concerning the staff of the School and their fields of interest may be obtained from the Registrar.

Applications including full personal details, details of academic record and publications, an outline of research interests and career goals and the names and addresses of at least two referees should be lodged, in duplicate, with the Registrar, The Flinders University of South Australia, Bedford Park, South Australia 5042, by 30th October 1986. Applicants should ask their referees to forward their reports directly to the Registrar before the closing date.

1986 - 1987 NATIONAL RESEARCH COUNCIL DEPARTMENT OF THE ARMY RESIDENT RESEARCH ASSOCIATESHIPS

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U.S. ARMY AEROMEDICAL
RESEARCH LABORATORY
FORT RUCKER, ALABAMA

Resident Research Associateship Awards are offered on a competitive basis to postdoctoral and senior scientists and engineers of unusual ability in the fields of

Visual Science
Auditory Perception
Visual Pharmacology
Visual Neuroscience
Comparative Psychoacoustics
Biodynamics

Programs are open to U.S. citizens only. Initial awards are for one year with the possibility of renewal.

The National Research Council will accept applications postmarked on or before Aug. 15, 1986, or Jan. 15, 1987.

For complete program descriptions and application forms, write to

**Dr. Kent A. Kimball
Director, Programs and Plans
U.S. ARMY AEROMEDICAL RESEARCH LABORATORY
P.O. Box 577, Fort Rucker, Alabama 36352-5000
OR
Associateship Programs - JH608-WR2A**

National Research Council

2101 Constitution Avenue NW Washington, DC 20418

CELL CULTURE SUPERVISOR

A mammalian cell culture manufacturing company seeks a supervisor in the cell culture production department. Extensive previous experience with both anchorage dependent and independent cells is required along with a BS in Biology or a related science. Previous supervisory experience of 3 to 5 years in a pharmaceutical GMP/GLP environment is desirable. This is a hands on position requiring supervision of 4 to 5 professional technicians in a sterile contained environment. For immediate consideration please submit your resume to:

**Mike Harris
INVITRON
CORPORATION
8000 Maryland Ave.
Suite 860
St. Louis, MO 63105**

An Equal Opportunity Employer

POSITIONS OPEN

PHYSIOLOGIST: Southern Illinois University (SIUE) School of Dental Medicine invites applications for a full-time faculty position in the Department of Biomedical Sciences, Section of Physiology. Ph.D. or equivalent in human physiology with demonstrated research ability is required. The individual filling this position will be responsible for teaching medical physiology to dental and graduate students and actively pursue research of own choice. Salary and rank commensurate with experience.

Closing date for applications is 3 November 1986, or until a suitable candidate is found.

SIUE School of Dental Medicine is an Equal Opportunity/Affirmative Action Employer. Send curriculum vitae to:

Dr. Herbert C. Butts, Dean
Southern Illinois University/Edwardsville
School of Dental Medicine
2800 College Avenue
Alton, IL 62002

AGRICULTURAL RESEARCH SERVICE (ARS) UNITED STATES DEPARTMENT OF AGRICULTURE (USDA)

PLANT PHYSIOLOGIST/BIOCHEMIST. ARS/USDA, Northern Regional Research Center, Peoria, IL, is seeking a plant physiologist/biochemist for a permanent position to develop a research program that will focus on lipid metabolism in soybean. The goals of the research include identification of the biochemical and molecular genetics which influence the plant cell's capacity to produce lipids.

Knowledge of lipid biochemistry is required and skill in molecular biology techniques is desirable. A Ph.D. or equivalent and appropriate postdoctoral training are required. U.S. citizenship is required. Salary is commensurate with experience, GS-12/13 (\$31,619 to \$37,599). Send curriculum vitae for position 6N-013 by 31 December 1986 to: **Dr. C. G. Crawford, Northern Regional Research Center, USDA, ARS, 1815 North University Street, Peoria, IL 61604.** Information concerning the position may be obtained by telephone: 309-685-4011, extension 550. *The USDA is an Equal Opportunity/Affirmative Action Employer.*

POLYMER CHEMIST—Develop programs for theoretical research into polymers for application to drug technology. Use Basic, Fortran, Pascal, and assembly languages. Ph.D. in chemistry and 5 years of experience required. Salary: \$37,000 per year. Send résumé to: **Philadelphia Job Bank, 444 North 3 Street, Philadelphia, PA 19123.** Refer to Order number 3907771.

POSTDOCTORAL CLINICAL TOXICOLOGY POSITION

Opening for individual with strong analytical chemistry background to collaborate with multidisciplinary investigators in Clinical Toxicology Section. Ongoing projects include reduction of toxicity of antineoplastic drugs, immunomodulating agents evaluation, antimicrobial drug development, pharmacology of neuroleptics, and toxicokinetics of metals. Experience with HPLC, GC, GC/MS, atomic absorption, and NMR/MRI desirable. Appointment in university Department of Pathology with opportunity for developing an independent research program. Send curriculum vitae and names of three references to: **Dr. Donald J. Cannon, Toxicology Laboratory (113T/NLR), VA Medical Center, North Little Rock, AR 72114.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION

The Immunopathology Unit of the Massachusetts General Hospital has an immediate opening for a postdoctoral immunochemist for 2 to 3 years to study the surface proteins of antigen-presenting cells. Candidates should have a strong background in immunoprecipitation techniques, 2-D gels, electroblotting, purification, and characterization of monoclonal antibodies. Salary \$20,000 to \$25,000 per annum, dependent on experience. Submit letter of interest, curriculum vitae, and three letters of reference to: **Dr. Richard Kradin, Immunopathology Unit, Massachusetts General Hospital, Boston, MA 02114.**

POSITIONS OPEN

POSTDOCTORAL FELLOW POSITION

A 2-year position for a postdoctoral fellow is available in the laboratory of **Dr. Kenneth Proctor** of the Department of Physiology and Biophysics of the University of Tennessee, Memphis. Candidates should have a Ph.D. or M.D. degree. Current studies include: local and neurogenic control of skeletal muscle vasculature, peripheral vascular actions of atrial natriuretic factor, and pharmacological characterization of novel vasoactive metabolites of arachidonic acid.

Send curriculum vitae, a brief statement of research interests, and the names of three references to: **Dr. Kenneth Proctor, Assistant Professor, Department of Physiology and Biophysics, University of Tennessee, Memphis, TN 38163.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW POSITION

A 2-year position for a postdoctoral fellow is available in the laboratory of **Dr. Leonard Share** of the Department of Physiology and Biophysics of the University of Tennessee, Memphis. Candidates should have a Ph.D. or M.D. degree, and a research interest in the neural control of vasopressin secretion or the role of vasopressin in hypertension and cardiovascular regulation. This position is funded by a training grant from the National Institutes of Health. **Applicants must, therefore, be citizens or permanent residents of the United States.**

Send curriculum vitae, a brief statement of research interests, and the names of three references to: **Dr. Leonard Share, Professor, Department of Physiology and Biophysics, University of Tennessee, Memphis, TN 38163.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW—Immediate opening. Ph.D. or M.D. to study the spectrotypic and idiotypic diversity of the human antibody response to bacterial polysaccharide antigens, to define genetic markers predictive of high or low responses, and to examine the role of idiotypes in the regulation of the response. Joint appointment will be held in an appropriate department at Harvard Medical School. Send curriculum vitae and three references to: **George R. Siber, M.D., Laboratory of Infectious Diseases, DANA-FARBER CANCER INSTITUTE, 44 Binney Street, Boston, MA 02115.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL LABORATORY SCIENTIST POSITION—is available immediately. This position involves clinical chemistry methods development and basic research. The candidate is also responsible for performance of some specialized endocrinological and toxicological determinations. Background in chemical or biological sciences with GC/MS experience useful. Starting salary \$20,000. Send curriculum vitae, references, and research interests to: **Dr. Lemuel J. Bowie, Director, Division of Clinical Biochemistry, Evanston Hospital, 2650 Ridge Avenue, Evanston, IL 60201.** *Equal Opportunity Employer, M/F.*

POSTDOCTORAL POSITIONS. Available in (i) the molecular biology and cloning of proteins which participate in human epidermal differentiation or (ii) in molecular genetics of staphylococcal exoproteins which cause skin injury. Experience in recombinant DNA technology, DNA sequencing, mutagenesis, and prokaryotic cell genetics will be favored. Please send curriculum vitae and three letters of reference to: **Kirk D. Wuepper, M.D., Department of Dermatology, The Oregon Health Sciences University, 3181 SW Sam Jackson Park Road, Portland, OR 97201.**

RESEARCH ASSOCIATE as a Postdoctoral Position available immediately for investigations of prostaglandin E₂ receptor structure and function in human erythrocyte. Ph.D. in life sciences required, with experience in protein chemistry. Please send résumé and three letters of reference to:

Asim K. Dutta-Roy, Ph.D.
Wright State University (WSU)
VA Medical Center (111W)
4100 West Third Street
Dayton, OH 45428

WSU is an Equal Employment Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study apoproteins of pulmonary surfactant in developing lung. Experience in isolation of membrane proteins or in molecular biology required. Stipend, MRC rates, \$20,000 per annum. Send résumé and references to: **Dr. Fred Possmayer, Department of Biochemistry, University of Western Ontario, London, Ontario, Canada, N6A 5A5.**

In the event of applicants of similar experience, Canadians will be given preference.

POSTDOCTORAL POSITION. One full-time, 2-year position in **Molecular Virology** effective 1 January 1987 to study the molecular biology of malignant catarrhal fever viruses. Applicants should have strong background in molecular biology, with specific experience relating to recombinant DNA technology. Send letter, curriculum vitae, and references to: **Dr. Werner P. Heuschele, San Diego Zoo, Box 551, San Diego, CA 92112.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION

Available immediately for Ph.D. to study the structure and function of transcriptional regulatory proteins in *Kluyveromyces* and *Saccharomyces*. Must have experience in genetic engineering or protein chemistry. Salary: \$17,000. Send résumé and names of three references to: **Dr. Robert Dickson, Department of Biochemistry, University of Kentucky, Lexington, KY 40536.** *Equal Opportunity Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATE IN NEUROIMMUNOLOGY is available to study the immunological mechanism of viral and autoimmune diseases of the CNS. Candidates should have experience in immunological techniques such as T-cell and B-cell cloning and a background in recombinant DNA techniques. Send curriculum vitae and three references to: **Dr. S. Sriram, Department of Neurology, C450 Given Building, University of Vermont College of Medicine, Burlington, VT 05401.** *The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSTDOCTORAL POSITIONS (FOUR) ENZYME PURIFICATION AND MECHANISMS

Four postdoctoral positions are available immediately in the research groups of **Dr. Leo Davis** (one position) and **Dr. Dan Quinn** (three positions). Work in Davis' laboratory is on the newly discovered threonine cleavage complex, and involves structural characterization of the catalytic mechanism of the complex. Work in Quinn's laboratory is cholesterol esterase and lipoprotein lipase by the measurement of substrate and solvent isotope effects and involves design and evaluation of mechanism-based inhibitors. Experience in enzymology is required for all positions. Experience in synthetic organic chemistry is desirable. Send application, including cover letter, curriculum vitae, and two letters of reference to: **Dr. Leo Davis or Dr. Dan Quinn at: The University of Iowa, Department of Chemistry, Iowa City, IA 52242.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL TRAINING PROGRAM IN NEUROBIOLOGY, COLUMBIA UNIVERSITY.

Emphasis is placed on the analysis of the cellular and molecular basis of neural development, behavior, and behavioral plasticity. **Training faculty include:** Richard Ambron, Richard Axel, Craig Bailey, Jurgen Brosius, Vincent Castellucci, Jane Dodd, Michael Gershon, Claude Ghez, Daniel Goldberg, Robert Hawkins, Thomas Jessell, Eric Kandel, Arthur Karlin, John Koster, Irving Kupfermann, John Martin, Steve Rayport, Lorna Role, Samuel Schacher, James Schwartz, Eli Shapiro, Steven Siegelbaum, Ann-Judith Silverman, Gary Struhl, Hadassah Tamir, Klaudiusz Weiss, and Robert Wong. **Applicants** for this NIMH-sponsored program must have the M.D., Ph.D., or D.V.M. degree and be either U.S. citizens or have permanent residency status. Send curriculum vitae, a letter describing research interests, and three letters of reference to: **Admissions Committee, Postdoctoral Training Program, Center for Neurobiology and Behavior, 722 West 168 Street, New York, NY 10032.** *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR IMMUNOLOGY DIRECTOR

CENTER FOR MOLECULAR MEDICINE AND IMMUNOLOGY

THE CENTER FOR MOLECULAR MEDICINE AND IMMUNOLOGY, a specialized cancer research and treatment center, is seeking a DIRECTOR for its Institute of Molecular Immunology. A national leader in the development and application of immunological approaches to cancer treatment is sought to direct the current and future program of this laboratory research unit, including the recruitment of scientific personnel. Special consideration will be given to those individuals with interest in monoclonal antibodies and immunochemistry. Excellent laboratory facilities are available to the successful candidate expected to develop a vigorous research program. Applicants must hold a Ph.D. or M.D. degree and have administrative experience as well as excellent credentials in research with a history of strong extramural funding.

The Center is located on the Newark campus of the University of Medicine and Dentistry of New Jersey (UMDNJ) and is closely affiliated with several of UMDNJ's research and educational programs. The Institute Director is eligible for a senior faculty appointment at the New Jersey Medical School of UMDNJ. In close proximity are excellent opportunities for educational, research, and cultural exchange among the many outstanding institutions within the greater New Jersey-New York metropolitan area. Ample housing exists in several adjacent communities and within short commuting distances of both the Center and New York City.

Applications, to include curriculum vitae, bibliography, a statement of career and research goals and the names of three references, should be sent to:

David M. Goldenberg, Sc.D., M.D.
President
Center for Molecular Medicine and Immunology
1 Bruce Street, Newark, New Jersey 07103

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NEW TECHNOLOGY ASSESSMENT

Amersham Corporation, a leading supplier of life science products to the research community has an immediate opening for a forward thinking scientist with a minimum of 1 year post doctoral experience.

In this commercial position you will be responsible for ensuring that Amersham Corporation continues to meet the technological needs of the North American research market. The ideal candidate will possess experience in a life science combined with specific expert knowledge in molecular biology. He or she will also be a fluent communicator and a shrewd interpreter of new developments in science. Heavy travel (fifty percent) is anticipated for visits to scientists at the leading edge of research discoveries.

We can offer you an excellent starting salary, an attractive benefits package including dental insurance and 401K savings plan, and a highly professional working environment. Amersham Corporation is located in an attractive suburb, northwest of Chicago, forty minutes from downtown. Send your resume including your salary requirements in confidence to:

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Equal Opportunity Employer M/F

Amersham

Faculty Positions

**Department of Microbiology and
Immunology
SUNY Health Science Center
at Brooklyn**

The Department of Microbiology and Immunology invites applications for several junior and senior faculty positions; salary and rank open depending upon qualifications and experience. These positions represent a newly funded commitment of SUNY to further the development of a strong and innovative program in the general area of Molecular Biology. To this end, the Department of Microbiology and Immunology has recently established a self-sufficient core facility (The Morse Institute of Molecular Genetics) to provide investigators with technical and logistic support. In addition, newly renovated laboratory space, technical support, and generous start-up funds are available for each position. Successful candidates are expected to conduct a vigorous and independent research program, participate in Medical and Graduate School teaching and interact collaboratively with other investigators within the HSCAB. Preference will be given to applicants interested in the molecular aspects of eucaryotic and pro-caryotic genetics, cancer, differentiation gene expression and replication. Send Curriculum Vitae, names of three references, and a brief statement of research interest by November 30, 1986 to: William McAllister, Ph.D., Chairman, Department of Microbiology and Immunology, SUNY Health Science Center at Brooklyn, 450 Clarkson Avenue, Box 44, Brooklyn, NY 11203.



**State University of New York
HEALTH SCIENCE CENTER
AT BROOKLYN**

EO/AA Employer DMC#C-0017

SUPERVISOR OF ADVANCED FIRE RESEARCH LABORATORY SHIP

GM-14, \$44,430 to \$57,759 per annum
(Salary depending on qualifications)

The Chemistry Division, Naval Research Laboratory, is seeking a Supervisory Research Chemist or Physicist or Supervisory Chemical, Mechanical or Aerospace Engineer to serve as the Technical Director of the Navy's Advanced Fire Research Laboratory Ship, Ex-Shadwell at Mobile, Alabama. Plans, conducts and supervises large scale fire research projects by developing the technical approach, staffing requirements and financial plans.

Applicants must demonstrate experience in conducting, evaluating and documenting full scale fire tests. Knowledge of fire research, combination scaling and fire modeling is required.

Interested applicants should submit a Personal Qualifications Statement (SF-171) or detailed resume prior to 14 November 1986 to:

NAVAL RESEARCH LABORATORY

Civilian Personnel Office
4555 Overlook Avenue, S.W.
Attention: 61-111-13.1 (S)
Washington, D.C. 20375-5000

AN EQUAL OPPORTUNITY EMPLOYER

U.S. CITIZENSHIP REQUIRED

POSITIONS OPEN

POSTDOCTORAL POSITION/BIOPSYCHOLOGY available immediately at Brooks Air Force Base, San Antonio, TX. Studies on the effects of psychopharmacological and nutritional interventions on human performance and physiology will be conducted. Experience in psychopharmacology (especially human), electrophysiology, and use of laboratory computers desirable. Application cutoff date: 20 October 1986. Send résumé, names of three references, and statement of research goals to: **ADMINISTRATOR, CLINICAL RESEARCH CENTER E17-445, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MA 02139.**

POSTDOCTORATE POSITION IN PLANT ECOLOGY

Position available at the **University of California, Santa Barbara**, to participate in research concerning the role of vegetation in biosphere dynamics. Work will include field measurements of biomass in boreal forests, under a grant from the Mellon Foundation. Applicants must have a Ph.D. in biology (ecology). Required experience includes: a thorough knowledge of statistical sampling design and analysis for vegetation studies, experience in wilderness research and the ability to plan and execute field studies in remote areas, ability to direct and train a field crew in vegetation sampling techniques, and knowledge of standard vegetation sampling methods. Position will be in the Specialist series. Salary and rank dependent upon qualifications and experience. Possibility of limited reappointment on a yearly basis, depending on availability of funding.

Application with curriculum vitae and names of three references should be sent to: **Dr. Daniel B. Botkin, Department of Biological Sciences, University of California, Santa Barbara, CA 93106.** Letters of reference should not be sent until requested. Applications must be postmarked no later than 31 October 1986. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE position is available immediately for study of the molecular basis for antiviral activity. Experience with retrovirus and/or herpesvirus, as well as a knowledge of enzymology and nucleic acid biochemistry, is required. Send curriculum vitae and three letters of recommendation to: **Dr. W. H. Prusoff, Department of Pharmacology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.**

Equal Opportunity/Affirmative Action Employer

The Australian National University. Applications are invited from suitably qualified men and women for appointment to the position of **PROFESSOR OF HUMAN GENETICS, JOHN CURTIN SCHOOL OF MEDICAL RESEARCH.** This position will be available following the retirement of **Dr. R. L. Kirk** at the end of 1986 and the change in title of the Department of Human Biology to Human Genetics. The work in human genetics in the John Curtin School of Medical Research includes molecular, biochemical and immunogenetics, with clinical and epidemiological applications. The university is seeking an outstanding researcher in human genetics who will complement the work of existing members of the school, as well as attract support for new developments. The John Curtin School of Medical Research has other major research areas in neuroscience, biochemistry, virology, immunology, experimental pathology, medical molecular biology and medicine and clinical science, and has a wide range of specialist and support services for the conduct of high level research. Further particulars may be obtained from the Registrar. Closing date: 15 December 1986. Reference: JC. 28.8.1. The salary for a professor will be A\$62,001 per annum. A clinical loading for a medically qualified appointee is payable as follows: A\$10,433 per annum for a person having responsibilities for patient care and A\$5,223 per annum for a person not having responsibility for patient care. Appointment as professor is to retiring age 65. Superannuation, maternity leave, and assistance with travel and housing available. The university reserves the right not to make an appointment or to make an appointment by invitation at any time. Applicants should quote the reference number when submitting applications to: **R. V. Dubs, Registrar, GPO Box 4, Canberra, ACT, 2601 Australia.** *The University is an Equal Opportunity Employer.*

POSITIONS OPEN

A **POSTDOCTORAL RESEARCH POSITION** will be available 1 December 1986, for an individual interested in participating in studies investigating the effects of alcohol on neuroendocrine cells. A knowledge of neuroanatomy is essential and experience in both radioimmunoassay and immunocytochemistry is desirable. Send curriculum vitae and three letters of reference to: **Dr. Gerald P. Kozlowski, Department of Physiology, University of Texas Health Science Center, 5323 Harry Hines Boulevard, Dallas, TX 75235.** *Equal Opportunity University.*

PROFESSOR AND HEAD

The Department of Botany and Microbiology, Auburn University, invites applications and nominations for an accomplished scientist-educator to head the diverse department of 25 faculty and professional staff. The position was created as part of the university reorganization whereby botany, microbiology, and the principal molecular genetics program of the university were separated from plant pathology, and placed into a new College of Sciences and Mathematics. The head will be expected to provide intellectual and philosophical leadership for faculty, staff, and students in their efforts to strengthen the teaching and research programs involving the subcellular and molecular processes of plants, microbes, and the biological interactions among them. Qualifications for the candidate include a Ph.D. in an appropriate discipline, a record of outstanding scholarly achievement, and demonstrated potential for administration. Review of applications will begin 1 November 1986, and will continue until an acceptable candidate is identified. Applicants should send curriculum vitae, names of three references, and a brief statement of philosophy on departmental administration to: **Dr. John Aull, Chairman Botany and Microbiology Department Head Search Committee, Department of Chemistry, 208 Saunders Hall, Auburn University, AL 36849.**

Auburn University is an Affirmative Action/Equal Opportunity Employer

YALE UNIVERSITY PROFESSOR STRUCTURAL BIOLOGY

Yale University is planning to make a tenured appointment in the field of structural biology. We seek an investigator who uses the methods of diffraction from crystalline and noncrystalline materials to determine macromolecular structure. The appointment will be made in the newly formed Center for Structural Biology, as well as in the appropriate academic department. We will base our selection primarily on the prospect that a candidate will make distinguished contributions to the field, but also on the candidate's qualities and promise as a teacher, colleague, and university citizen. *We encourage applications from women and members of minority groups.* Applications including curriculum vitae and a statement of future research plans should be received no later than 1 November 1986. Send all material to: **Professor D. M. Engelman, Senior Search Committee, Box 6666, 260 Whitney Avenue, New Haven, CT 06511.**

Yale University is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSISTANT position available in a molecular embryology laboratory. Experience in mammalian embryos required. Knowledge in embryo/cell culture and molecular biology preferred. Duties include mouse embryo dissection and culture, studies on primordial germ cells, embryonal carcinoma cells, and embryonic stem cells. Send curriculum vitae, transcripts, and three letters of reference to: **Employment Manager, Jackson Laboratory, Bar Harbor, ME 04609.**

RESEARCH ASSISTANT II/III (Electron Microscopy). B.S./M.S. in biological sciences or equivalent experience in electron microscopy. Primary responsibility is to operate and manage Electron Microscopy Core Facility. Other duties are to prepare sections for transmission electron microscopy and light microscopy, and to make EM negatives. Teach EM techniques to Core users. Perform minor maintenance. Manage common darkroom facilities and maintain supply stocks. Maintain logbooks. Send résumé to: **Dr. Everett Anderson, Associate Director, Laboratory of Human Reproduction and Reproductive Biology, Harvard Medical School, 45 Shattuck Street, Boston, MA 02115.**

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study effects of dietary saturated and/or polyunsaturated fats upon lipoprotein-receptor interactions in animals and humans. Candidate should have a recent Ph.D. (up to 3 years) with experience in and knowledge of membrane biochemistry/biophysics. Salary commensurate with experience (\$26,381 to \$31,619). **Telephone Dr. Elliott Berlin for position information on 301-344-2297.** Send appropriate application and three references to **Rose Cunningham** or telephone: **301-344-3953** at USDA, Agricultural Research Service, Room 107, Building 003, BARC-West, Beltsville, MD 20705. Applications in response to this advertisement must be marked 6E049. Deadline for receipt 31 October 1986. *An Equal Employment Opportunity Employer.*

RESEARCH ASSISTANT/ASSOCIATE PROFESSOR OF ORTHOPAEDICS. The Department of Orthopaedics seeks a qualified candidate to conduct research in bioengineering. Qualifications include a Ph.D. in an appropriate discipline and a proven record of successful achievements in research with major publications and grant awards. A special interest in the response of bone to mechanical stimulation is desirable. The successful candidate will have a commitment to teaching medical students and residents within his/her discipline. The appointee will be expected to initiate new research activity and collaborate with faculty and residents. Faculty rank and salary are dependent on training and experience. Please submit curriculum vitae by 17 October 1986 to: **Roger Dee, M.D., Professor and Chairman, Department of Orthopaedics, Health Sciences Center, School of Medicine, State University of New York (SUNY)-Stony Brook, Stony Brook, NY 11794-8181.** *SUNY-Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer.* AK number 213-C.

RESEARCH ASSOCIATE/MOLECULAR VIROLOGIST: We are seeking a scientist with expertise in molecular biology to direct research in an active retrovirology laboratory. Salary is commensurate with experience. Curriculum vitae and three letters of recommendation should be submitted to: **Lionel Resnick, M.D., Chief of Retrovirology Laboratories, Departments of Dermatology and Pathology, Mount Sinai Medical Center, 4300 Alton Road, Miami Beach, FL 33140.** *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE position available immediately for individuals with M.D. or Ph.D. degree in studying the subject of brain tumor immunobiology and immunotherapy using monoclonal antibodies. Methods currently in use include HPLC, SDS-PAGE, tissue culture, radioisotope assays, autoradiography, and immunocytochemistry. The applicant should have background knowledge in molecular biology, neurohistochemistry, neurooncology, and hybridoma production, especially with syngeneic immunization. Salary: \$17,400 minimum. Send curriculum vitae and names of three references to:

**Dennis E. Bullard, M.D.
Department of Surgery/Neurosurgery
Box 3128, Duke University Medical Center
Durham, NC 27710**

If not U.S. citizen, please indicate visa status.

RESEARCH DEVELOPMENT. A PROGRAM COORDINATOR position is available. Doctorate in a science or clinical field is preferred; however, other qualifications will be considered. Individual will join an office which assists faculty in the design of effective grant proposals, maintains relations with granting agencies, and helps organize larger multi-investigator proposals. Candidates should possess strong communications skills and the ability to work well with faculty and department heads in a major university environment. The University of Illinois at Chicago (UIC) is a comprehensive public, urban university with 25,000 students, 2,000 faculty and more than \$43 million in sponsored programs support. Salary negotiable. For full consideration, résumé, names, addresses, and telephone numbers of three references should be sent by 20 October to: **Dr. Brian W. Rigby, Office of Sponsored Research, (m/c 672), University of Illinois at Chicago, Box 6998, Chicago, IL 60680.** Telephone: 312-996-4995. *An Equal Opportunity/Affirmative Action Employer.*

**NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE
DEPARTMENT OF HEALTH AND HUMAN SERVICES**

The National Institute of Dental Research (NIDR) invites nominations and applications for the position for Director, Epidemiology and Oral Disease Prevention Program (EODPP). This is a Civil Service position in the Senior Executive Service with a salary range of \$61,296 to \$68,700 per annum. The person selected may be eligible for Physician's Comparability pay up to \$10,000 per year. A one-year probationary period must be served by the individual selected if not currently in the Senior Executive Service.

The Director, EODPP, is fully responsible for the scientific and administrative management and direction of a research program applying epidemiologic, biometric, and clinical trials methodologies to the investigation of oral diseases and disorders, and serves as the focal point within the Federal sector, the scientific community, and the public for these activities.

Candidates must meet the minimum educational requirements (or possess equivalent combination of experience and training) for Dental Officer, GS-680; Medical Officer, GS-602; General Health Science (Epidemiologist), GS-601; Statistician, GS-1530; or an allied scientific discipline, as defined by the U.S. Office of Personnel Management Handbook X-118, Qualification Standards for Positions Under the General Schedule, which is available in Federal Personnel Offices and Federal Job Information Centers. Further information about the position and qualification requirements may be obtained by contacting Ms. Carol M. Beasley, (301) 496-6971. A Personal Qualifications Statement (SF-171), accompanied by a current curriculum vitae and bibliography, should be submitted to **Ms. Beasley, Building 31, Room 2C23, National Institutes of Health, 9000 Rockville Pike, Bethesda, Maryland 20892.**

Applications must be postmarked no later than November 15, 1986.

All qualified candidates will receive consideration without regard to race, religion, color, sex, age, national origin, lawful political affiliation, marital status, union membership, or any nondisqualifying physical or mental handicap.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

Principal Investigator

Immunodiagnostics Research & Development

Covalent Technology Corporation has developed a novel proprietary technology for rapid and simple-to-perform medical diagnostic test kits. We are seeking an aggressive senior level scientist to participate in research and development of our new technology for detection of infectious agents. The successful candidate will be a principal investigator tasked with the development, optimization, and standardization of rapid immunoassays for viruses, bacteria, fungi, and parasites. Researchers with a PhD in Immunology, Microbiology, or Parasitology, with two to five years postdoctoral or industrial research experience, and publications on development, critical evaluation, or use of immunodiagnostic procedures for infectious diseases, are invited to apply. Working experience with enzyme immunoassays, radioimmunoassays, microparticle agglutination assays, immunofluorescence or nucleic acid probe assays is desirable. Experience in developing rapid immunodiagnostic assays for commercial use is preferred. Oral and written communication skills, strong human relations skills, and a capacity for acquiring new business are necessary.

Salary will be commensurate with experience. Send your resume, salary history, and references to: **COVALENT TECHNOLOGY CORPORATION, 3941 Research Park Drive, Code 86-008-SC1, Box 1868, Ann Arbor, MI 48106.**



**Covalent
Technology Corporation**

equal opportunity employer m/f

Analytic Systems/Intelligence Information Processing CIA . . .where your CREATIVITY

At the Central Intelligence Agency, the heart of our operations is the analysis of raw information and its development into finished intelligence for the President and other senior U.S. policymakers. Many of the analytic tools for this critical function are developed by the Office of Research and Development.

To make important contributions to our analytic systems and intelligence information processing, we are seeking highly creative professionals with expert analytic skills, a strong background in Mathematics, Operations Research, or Computer Science, and interests in:

- Initiating and directing multidisciplinary research in analytic methodologies
- Applying operations research, mathematics, and computer science techniques to intelligence information processing and modeling

**turns data into
intelligence.**

- Developing analytic models in the form of:
 - simulation systems
 - expert systems
 - advanced graphics
 - advanced computer applications

These positions require a PhD, or equivalent, and a minimum of two years experience. U.S. citizenship (both self and spouse) is mandatory. Employment is contingent upon full security and medical clearance.

Positions are located in the Washington, D.C. metropolitan area; some travel is required. The salary range is \$30,000 to \$50,000 commensurate with education and experience.

For further information, send a detailed resume and request for application form to:

Recruitment Officer (Y11)
Office of Research & Development/ACS
Central Intelligence Agency
Washington, D.C. 20505



Central Intelligence Agency

The CIA is an equal opportunity employer. Written inquiries only. We will respond within 30 days to those judged to be of further interest.

POSITIONS OPEN

RESEARCH PHYSICAL SCIENTIST/RESEARCH CHEMIST. The Environmental Monitoring Systems Laboratory, U.S. Environmental Protection Agency, Research Triangle Park, NC, invites applications for a research position to develop and evaluate methods and instruments to measure air pollutants. Applicants should have the ability to research and develop diverse analytical instrumentation to detect trace levels of airborne chemical pollutants. The position also requires research on new scientific concepts that may lead to improved analytical sensitivity and selectivity for measuring toxic chemicals in air. Candidates should have an advanced degree or equivalent in chemistry or an allied field. Position starts at the GS-11 level (\$26,381 to \$34,292) with promotion potential to the GS-13 level (\$37,599 to \$48,876). Send SF-171 (available at most post offices and federal government laboratories) to: Shirley Bowens, U.S. Environmental Protection Agency, Personnel Management Division (MD-29), Research Triangle Park, NC 27711. EPA is an Equal Opportunity Employer.

RESEARCH SCIENTIST: to participate in studies on the structural and mechanical properties of bone. Preference given to applicants with a doctoral degree and experience in image analysis and materials testing. Salary: approximately \$20,000 per year funded through Health Research, Inc. Send résumés to: Dr. David W. Dempster, Regional Bone Center, Helen Hayes Hospital, Route 9W, West Haverstraw, NY 10993. Equal Opportunity/Affirmative Action Employer.

RESEARCH SCIENTIST

The U.S. Geological Survey (USGS), Branch of Coal Geology, announces two senior research geologist vacancies:

An **INORGANIC GEOCHEMIST**, with wide experience in coal geochemistry and coal geology, specializing in geochemical interpretation of the origins of mineral matter in coal and the effects of the inorganic constituents on coal mining and utilization, and a **SEDIMENTOLOGIST**, specializing in sedimentary facies analysis with focus on basin analysis, as well as micro-environments of deposition and interpretation of sedimentary structures, all with regard to coal.

Positions will be located in either Denver or Reston, Virginia. Candidates for both positions should have the Ph.D. degree or equivalent experience, and be senior level, field-oriented, highly motivated scientists with extensive, significant publication records in their respective fields and demonstrated expertise in directing and focusing coal science. It is anticipated that the positions will be at the GS-13 to GS-14 level (\$37,559 to \$57,759 per annum), dependent upon qualifications. For further information, contact: John O. Maberry, Chair, Search Committee, Branch of Coal Geology, 956 USGS National Center, Reston, VA 22092; telephone: 703-648-6448. Applications must be made by Standard Form 171, Application for Federal Employment, available from the above address or from any Federal Personnel Office. Applications must be received by 30 November 1986. USGS is an Equal-Employment Employer; the positions are limited to United States citizens.

RESEARCH SCIENTIST to perform mechanical tests on metals using creep and fatigue machines; to investigate, experimentally and theoretically, creep, crack, and fatigue in superalloys and in ceramics (using advanced dislocation theory and fracture mechanics); to set up computer-operated laboratory for mechanical testing; to perform computer simulations of mechanical behavior using molecular dynamic techniques. Ph.D. in physics or mechanical engineering required, plus 1 year in job offered or 1 year performing mechanical tests on metals. All applicants must have knowledge of metallographic techniques, x-ray diffraction, scanning and electron transmission, electron microscopy, mechanical design, mechanical testing using servo hydraulic machines, advanced dislocation theory and fracture mechanics, and computer-dependent data acquisition techniques. All applicants must also be able to perform computer simulations using molecular dynamic techniques. Salary for 40-hour week, \$28,000 per year. Mail résumé and copy of ad to: Department of Employment and Training, 1123 North Eutaw Street, Room 201B, Baltimore, MD 21201. Job Order Number 6008505; Job location: Lanham, Maryland.

POSITIONS OPEN

RESEARCH SCIENTIST

Nucleic Acid Research Institute, an ICN Pharmaceuticals, Inc. and Eastman Kodak Partnership, is seeking a research scientist. The candidate must have a Ph.D. degree in chemistry and 8 years of postdoctoral research experience in medicinal chemistry. Must have demonstrated abilities and achievements in synthesis and the preparation of nitrogen-heterocyclic compounds, peptides, nucleosides, and nucleotides. Strong background in medicinal chemistry also required. Salary: \$38,000 per year. Please send résumé and list of publications with names and addresses of references to: Dr. Roland K. Robins, Director, Nucleic Acid Research Institute, 3300 Hyland Avenue, Costa Mesa, CA 92626.

RESEARCH SCIENTIST III (IMMUNOLOGY AND EPIDEMIOLOGY OF DESIGNATED VIRAL DISEASES)

A position is available in the Viral and Rickettsial Disease Laboratory, California Department of Health Services, Berkeley, CA, to direct and conduct highly specialized research and development of diagnostic tests for diseases of public health importance, including AIDS and related diseases. The starting salary is \$3846 per month. The position requires either 3 years of experience in California State Service as a research scientist II, or 4 years of appropriate research experience in the last 7 years in the stated specialty or a closely related field, and a doctoral degree in virology or a closely related field. Expertise in the development and use of viral immunoassays, cell hybridization, cell culture methods and characterization of viral genomes and proteins, experimental designs for studying viral pathogenesis and immunopathology, and rapid viral detection methods is desirable.

Selection of the candidate will be on the basis of a competitive State Civil Service examination, followed by job interviews. The final postmark date for submission of application is 29 October 1986. Applications with résumé are to be sent to: Division of Laboratories, California State Department of Health Services, 2151 Berkeley Way, Berkeley, CA 94704. Application forms are available at any California State Personnel Board Office or you may obtain an application by contacting the Division of Laboratories at telephone: 415-540-2408. An Equal Opportunity/Affirmative Action Employer.

RESEARCH SENIOR PROJECT SCIENTIST

One of the world's leading pharmaceutical manufacturers currently has an excellent opportunity for a senior project scientist in our Research and Development Department.

The selected candidate will possess a Ph.D. in biochemistry/immunology or equivalent to manage a department of six optimizing the antihemophilic factor. Requires a knowledge of protein isolation and purification. Enzymology and clotting factor experience a plus.

Please send résumé with salary requirements to Dave Callihan. Principals only, please.

ALPHA
THERAPEUTIC CORP.
5555 Valley Boulevard
Los Angeles, CA 90032

Equal Opportunity Employer, M/F

SENIOR PLANT PATHOLOGIST: Will perform research in plant mycoplasma and virology using c-DNA technology and hybridoma techniques to develop new diagnostic tests, such as immunotests for mycoplasma-like organisms, spiroplasma and c-DNA probes for viruses and viroids, to be used for plant breeders and tissue cultures laboratory. Will integrate disease testing in breeding programs for disease resistance, testing in tissue culture programs for production of disease-free seed materials. Requires Ph.D. degree in plant pathology. Also requires 1 year of actual job experience or 1 year of experience as a postdoctoral researcher using c-DNA technology and hybridoma techniques. Education to include 2 years of research in plant mycoplasma and virology as they relate to plant breeding and tissue cultures. Hours: 8:00 a.m. to 5:00 p.m. Forty hours per week at \$28,000 per year salary. Please send résumé with social security number to: Indiana State Employment Service, 10 North Senate Avenue, Indianapolis, IN 46204, Attention: W. F. Shepherd, I.D. number 3095761. An employer-paid ad.

POSITIONS OPEN

The Department of Physiology and Biophysics at Dalhousie University School of Medicine is seeking qualified applicants for a tenure-track appointment in

RESPIRATORY PHYSIOLOGY

at the **ASSISTANT PROFESSOR** level. Candidates are expected to develop a strong research program, to attract external funding, and to participate in medical and graduate teaching. Interest in existing departmental research programs (cardiovascular and renal physiology, endocrinology, and neuroscience) or ability to collaborate with clinical respiratory would be assets. Position presently open. In accordance with Canadian immigration regulation, this advertisement is directed first to Canadian citizens and landed immigrants. Dalhousie has a policy of Affirmative Action in hiring qualified women academic staff. Applications containing curriculum vitae, record of grant support and bibliography, brief description of future research plans, and names of three referees should be addressed to:

Dr. K. B. Ruf, Head
Department of Physiology and Biophysics
Sir Charles Tupper Medical Building
College Street
Dalhousie University
Halifax, Nova Scotia, B3H 4H7



SENIOR PROGRAM OFFICER/TOXICOLOGIST

NATIONAL RESEARCH COUNCIL (NRC)

The NRC/Board on Environmental Studies and Toxicology seeks candidates for a senior program officer to develop and manage evaluative programs with the Committee on Toxicology beginning early 1987. Position requires Ph.D. or equivalent in toxicology or allied biomedical fields, a sound multidisciplinary scientific background, and documented ability to write effectively and to interact productively with committees. Incumbent will be expected to develop studies dealing with broad methodologies and interpretive issues in toxicology. Department of Defense experience helpful.

Responsibilities include supervision of Ph.D. level staff. Applicants should submit résumé to: Position number 459.027, National Research Council, 2101 Constitution Avenue, NW, Washington, DC 20418. An Equal Opportunity Employer.

SENIOR SCIENTIST MOLECULAR BIOLOGY

5 PRIME → 3 PRIME, INC., a rapidly growing biotechnology company, has an immediate opening for an innovative research scientist for development of novel new products for recombinant DNA technology. This position requires a dynamic, creative scientist who likes working in a small but efficient group. Qualifications include a Ph.D. in molecular biology, microbiology, or biochemistry and a minimum of 2 years of postdoctoral training. Preference will be given to individuals with experience in cDNA cloning, construction of genomic libraries, gene isolation, cloning and modification, DNA synthesis, and sequencing. Competitive compensation with unlimited opportunity for advancement is offered. Send curriculum vitae to: Linda M. Morris, Vice President, 5 PRIME → 3 PRIME, INC., 19 East Central Avenue, Paoli, PA 19301; telephone: 215-644-4710.

SLOAN VIDEOHISTORY PROJECT MANAGER: Immediate opening available at the Smithsonian Institution, Washington, DC, for an historian to act as program manager for a 4-year, exploratory program to produce a set of videohistory studies now under development by members of the Smithsonian staff. Salary range: \$31,619 to \$41,105 per year. In addition to a Personnel Qualifications Statement SF-171, submit a supplemental sheet giving explicit examples of management experience and training to: Smithsonian Institution, Office of Personnel Administration, Arts and Industries Building, Room 1410, 900 Jefferson Drive, SW, Washington, DC 20560. To request a copy of the vacancy announcement, telephone: 202-357-2465, ask for announcement 86-405-T. The Smithsonian is an Equal Opportunity Employer.

Director Protein Chemistry

Triton Biosciences Inc., a subsidiary of Shell Oil Company, is an emerging force in the development of cancer diagnostics and therapeutics. Our Company is built upon a strong base of research expertise, solid support, and responsive management. We are currently seeking an experienced research manager who will report directly to the Vice President of Research & Development.

You will be responsible for providing technical and organizational leadership for Triton's protein chemistry department during a period of rapid growth. The department is engaged in a variety of research projects on cancer diagnostics and therapeutics including oncogenes, growth factors, and lymphokines, and works in close collaboration with departments of molecular & cell biology and diagnostics research and development. Triton supports a sizable extramural research program and encourages collaborations with university researchers and publication of results.

Facilities include six laboratories with several more under construction, full supporting services, peptide and DNA synthesizers, substantial capability in chromatography, especially HPLC, protein sequencing equipment, molecular modeling capabilities including a VAX computer network, Evans & Sutherland graphics and software support.

Candidates should have a PhD in protein chemistry, and significant research experience in one or more of the following areas: protein synthesis, sequencing and structure determination, separations and purification, and structure/biological activity relationships. Additionally, candidates should have significant industry experience in managing a large research group towards commercial goals.

Triton is located in the San Francisco Bay area, offers competitive salaries and Company benefits including relocation assistance. For prompt consideration, please forward your C.V. with salary requirements and the names of three references to: Employee Relations, Box JFC, 1501 Harbor Bay Parkway, Alameda, CA 94501. An equal opportunity employer.



Triton Biosciences Inc.

Sr. Research Associate Analytical/Biochemistry

Travenol Laboratories, Inc., a progressive leader in the health care industry, is offering a unique opportunity for a Ph.D. Scientist to join our chemistry research and development teams. Our commitment to trail-blazing development of hemoglobin-based products has created a challenging research opportunity for a scientist with expertise in analytical chemistry or biochemistry.

This position in our Analytical Method Development Group involves the use both of established bioanalytical methods, such as electrophoresis and isoelectric focusing, and of cutting-edge methods such as HPLC. Leadership in the development of stability-indicating, rugged assays is required.

Qualified candidates will have a Ph.D. in Analytical Chemistry or Biochemistry or equivalent experience in separation science. Research experience in water soluble polymers, proteins, peptides and gel permeation chromatographic technique will be considered a plus. Excellent communication and scientific problem solving skills are also essential.

A stimulating research environment which includes state-of-the-art instruments and related scientific resources is available here at Travenol. Publication and scientific growth are encouraged. An excellent salary and benefits program are provided. Please send resume, including salary history, to: **Vern Von Feldt, Dept. CH.**



Travenol Laboratories, Inc.
6301 Lincoln Ave.
Morton Grove, IL 60053

Equal Opportunity Employer

SENIOR RESEARCH SCIENTIST

G.D. Searle is a multinational research based pharmaceutical company employing a thousand people in its U.K. operation. A research programme has recently been established with Oxford University on the isolation and characterization of enzymes involved in the processing of oligosaccharides and glycoconjugates.

We now wish to appoint a Senior Research Specialist to participate in this programme. The successful candidate (male/female) will have had extensive experience in enzymology and state-of-the-art techniques for protein isolation, purification and characterization; and will join a group of scientists to be located at the Department of Biochemistry, Oxford.

This position offers the individual an exciting opportunity to interact with one of the leading laboratories involved in sequencing oligosaccharides and structure/function studies of glycoproteins. Qualifications must include a Doctorate in Biochemistry. Ideally, applicants should hold British Nationality and have additional training in microbiological and fermentation techniques.

A competitive salary will be paid and company benefits include pension fund, private medical insurance, 23 days annual leave. Relocation assistance will be provided, if necessary.

Please apply with detailed curriculum vitae to:

John Williams
Personnel Director
G.D. Searle & Co. Ltd.
P.O. Box 53
Lane End Road
High Wycombe
Bucks. HP 12 4HL
England

Equal Opportunity Employer M/F

SEARLE

POSITIONS OPEN

SPEECH SCIENTIST: Faculty position requires experience in advanced instrumentation, physiological processes, and vocal tract imaging. **VESTIBULAR FUNCTION SPECIALIST:** Faculty position with responsibility for teaching and research and administration of modern vestibular laboratory. Salaries and rank negotiable. *An Equal Opportunity/Affirmative Action Employer.* Contact: **Robert Mathog, M.D., Professor and Chairman, Department of Otolaryngology, Wayne State University, 540 East Canfield Street, Detroit, MI 48201.**

Immediate Multiple Positions: SCIENCE DIRECTOR; AND RECOMBINANT, MONOCLONAL, AND TISSUE CULTURE SCIENTISTS; AND FDA PRODUCTION MANAGER. Startup Biotechnology company has a major recombinant product; doing R&D with Fortune 100 company, including earth orbit applications in space. Clinicals start soon. Applicants to be: quality people, positive, good natured, result oriented, self starting, committed to private sector, and have the "right stuff." Prefer experience with marrow growth factors such as EPO, CSF, GM-CSF. This is a rare ground floor opportunity. Join us. Résumé to:

Elanfx Pharmaceuticals, Inc.
Suite 115, 22121 17th Avenue, SE
Bothell, WA 98021

TECHNICIAN HOWARD HUGHES MEDICAL INSTITUTE THE UNIVERSITY OF CHICAGO

Technician required for laboratory using molecular biological techniques to study insulin receptor structure and function. Work will involve tissue culture and techniques in molecular biology including cDNA cloning, site-directed mutagenesis, and DNA sequencing. Applicants should have a B.S. in biological sciences. Previous experience of tissue culture and recombinant DNA technology would be an advantage. Send curriculum vitae to: **Dr. Jonathan Whittaker, Howard Hughes Medical Institute, The University of Chicago, 920 East 58 Street, Chicago, IL 60637.**

TOXICOLOGIST search reopened. Position available for a toxicologist/pathologist, Ph.D. with 3 to 5 years of industrial/GLP experience. Responsibilities will include supervision of necropsy and histology laboratory, as well as animal husbandry services. Successful candidate will also conduct a research program relevant to the needs of the U.S. Air Force and Navy which Northrop supports through the Toxic Hazards Research Program located at Wright-Patterson Air Force Base, near Dayton, OH.

Qualified applicants should send their résumés, including salary history, to:

Northrop Services, Inc.
Environmental Sciences
101 Woodman Drive, Suite 12
Dayton, OH 45431

*Equal Opportunity/Affirmative Action Employer. M/F/
Veteran/Handicapped*

ASSISTANTSHIPS

ASSISTANTSHIPS

MEDICAL SCIENTIST TRAINING PROGRAM offers assistantship 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, SC 29425.**

PROGRAM

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with a doctorate-level degree in science, the opportunity to earn the doctor of optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Dr. D. M. Chauncey, Ph.D.-O.D. Program Director, The New England College of Optometry, 424 Beacon Street, Boston, MA 02115; telephone: 617-266-2030, extension 147.**

MEETING

1987 HISTOCHEMICAL SOCIETY MEETING. 3 TO 5 APRIL 1987: FAIRMONT HOTEL, NEW ORLEANS, LOUISIANA. Abstract forms in November 1986 *Journal of Histochemistry and Cytochemistry*. Deadline: 16 January 1987. **Dr. Edward W. Gresik,** Program Chairman, Mount Sinai School of Medicine, New York City. The meeting will feature four symposia: (i) Cellular and Molecular Probes in Cytochemistry; (ii) Use of Fluorogenic Dyes in Biomedical Research; (iii) Ultrastructural Immunocytochemistry—Theory and Advances in Postembedding Staining; (iv) Immunocytochemistry and Advances in Diagnostic Pathology. The Vector Young Investigator awards for travel expenses and the Ralph D. Lillie Award will be presented at the meeting. Young investigators and students are encouraged to apply when they submit abstracts. The Histochemical Society welcomes new members. Membership forms can be obtained from: **Dr. C. Oliver, Laboratory of Oral Biology/Physiology, Building 30, Room 211, National Institute of Dental Research, National Institutes of Health, Bethesda, MD 20205.**

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For program and registration information, contact:

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FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP available immediately for outstanding opportunity to study novel enzyme inhibitors produced by human lymphocyte lines which have immunologic and oncologic significance. Candidate should be U.S. citizen and recent Ph.D. in biochemistry, with emphasis on enzyme and protein chemistry. Send résumé and names of three references to: **Dr. Sheldon Dray, m/c 790, Department of Microbiology/Immunology, University of Illinois at Chicago, Chicago IL 60680.**

UNITED STATES-ISRAEL FELLOWSHIP PROGRAM—BARD—The United States-Israel Agricultural Research and Development Fund has initiated a binational postdoctoral fellowship program promoting cooperative agricultural research between postdoctorates from the United States and scientists from Israel and vice versa. Grant applicants should be citizens of either the United States or Israel, should have fulfilled the requirements for a Ph.D. within the last 3 years (postdoctorates) and should have no other sources of support. The deadline for applications is 1 December of each year. For information on application procedures, contact: **Yair Guron, Executive Director, at either: BARD, P.O. Box 6, Bet Dagan 50250, Israel, Telephone: 972-3-955133 or BARD, U.S. Department of Agriculture, Building 005, BARC-West, Beltsville, MD 20705, Telephone: 301-344-2605.**

POSTDOCTORAL FELLOWSHIP IN MOLECULAR NEUROBIOLOGY, to study the regulation of gene expression in the vertebrate olfactory system. We are addressing changes associated with neuronal turnover and the attendant transsynaptic remodeling during normal development and in response to olfactory nerve lesions. Our ongoing research involves the identification and characterization of those genes selectively expressed in this neural pathway. The successful candidate will have a recent Ph.D. in molecular biology or biochemistry and a commitment to the study of cell-specific gene regulation. This position is available January 1987. Send curriculum vitae and three letters of recommendation to: **Dr. Frank L. Margolis, Roche Institute of Molecular Biology, Nutley, NJ 07110.**

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POSTDOCTORAL TRAINING FELLOWSHIPS IMMEDIATE OPENINGS

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