

corresponding to a Hubble constant of 50 or 100 km sec⁻¹ Mpc⁻¹, and so to age limits of 20 or 10 billion years. Curiously, this difference persists even after long-standing disagreements about distances within our own Local Group have been reconciled (with Andromeda at 685 kpc and the Large Magellanic Cloud at 50 kpc, known to within about 10% in each case). Long distance scales (small H_0 and large age) come from supernovae (Wheeler and Harkness) and 21-cm line widths of spiral galaxies (Huchtmeier; Kraan-Korteweg *et al.*) and short distance scales (large H_0) from a variety of stellar and galactic properties (summarized by de Vaucouleurs).

Three contributions pertain to the closely related issue of the oldest objects in the universe and concur that globular clusters (Renzini), elliptical galaxies (Windhorst *et al.*), and radioactive nuclides (Thielmann and Truran) all seem to be at least 13 ± 3 billion years old and are, therefore, very difficult to understand in a universe with the short distance scale and no cosmological constant.

Optimism continues to be expressed that the ancient H_0 controversy will be resolved by the Hubble Space Telescope (studying, for instance, Cepheids in the Virgo clusters) or even earlier from ground-based observations of novae in Virgo (van den Bergh). Unfortunately, as addressed by Burstein *et al.*, Collins *et al.*, J. Mould, and Meiksin and Davis and in about eight other contributions, it now seems exceedingly unlikely that a definitive global value of H_0 can be extracted from observations extending out only as far as Virgo (10 or 20 Mpc on the two scales). The problem is that these groups have assembled a considerable body of evidence indicating that there are large scale deviations from smooth Hubble expansion, amounting to at least 500 to 700 km sec⁻¹ and applying coherently to regions as large as 50 (100 H_0^{-1}) Mpc. Lumpiness in the space density of galaxies also persists out to scales at least as large, according to data presented by Haynes and Giovanelli and by N. Bahcall (whose contribution unfortunately did not make it into the proceedings), and perhaps out to 400 (100 H_0^{-1}) Mpc, which would take in some 10^{18} solar masses (Tully). The extent to which the large scale velocity structure is associated with, produced by, or the cause of the large scale density structure remains to be determined, although the motion of the Local Supercluster may be attributable to the gravitational effects of the even larger adjacent Hydra-Centaurus supercluster.

In any case, as emphasized by Vittorio, Bond, and other participants, most current, popular models of galaxy formation have

difficulties in accounting for this very large scale structure and streaming without at the same time producing larger inhomogeneities in the microwave background radiation than data (summarized by Lubin and Vilella) permit.

A third major issue addressed at the workshop is the amount of gravitating mass implied by superclusters and larger structures and how close it comes to the critical density needed to close the universe. Most optical studies (Shaya and others) concur that scales up to superclusters contain only $20\% \pm 10\%$ of the critical density, though the robustness of this conclusion is still under active debate (Melott and others). But data from the IRAS satellite imply a much larger baseline density upon which these structures are superimposed (Yahil) and so a total density within striking distance of closure. This is a real discrepancy that will require further study.

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Reprints of Books Previously Reviewed

The Anatomy of a Scientific Institution. The Paris Academy of Sciences, 1666–1803. Roger Hahn. University of California Press, Berkeley, 1986. Paper, \$14.95. Reviewed **173**, 804 (1971).

The Birth of Particle Physics. Laurie M. Brown and Lillian Hoddeson, Eds. Cambridge University Press, New York, 1986. Paper, \$18.95. Reviewed **226**, 38 (1984).

In the Name of Eugenics. Genetics and the Uses of Human Heredity. Daniel J. Kevles. University of California Press, Berkeley, 1986. Paper, \$9.95. Reviewed **232**, 531 (1986).

Radiant Science, Dark Politics. A Memoir of the Nuclear Age. Martin D. Kamen. University of California Press, Berkeley, 1986. Paper, \$8.95. Reviewed **228**, 845 (1985).

Books Received

Biophysics and Cancer. Claudio Nicolini. Plenum, New York, 1986. xvi, 463 pp., illus. \$79.50.

The Biotechnological Challenge. S. Jacobsson, A. Jamison, and H. Rothman. Cambridge University Press, New York, 1986. viii, 181 pp., illus. \$34.50.

Charge Transfer Reactions in Electrochemical and Chemical Processes. L. I. Krishtalik. R. G. Compton, translation ed. Consultants Bureau (Plenum), New York, 1986. xviii, 326 pp., illus. \$65. Translated from the Russian edition (Moscow, 1979) by R. S. Wadhwa and N. V. Deineko.

Chemical Applications of Ultrafast Spectroscopy. Graham R. Fleming. Clarendon (Oxford University Press), New York, 1986. x, 262 pp., illus. \$49. International Series of Monographs on Chemistry, 13.

Chemical Bonds Outside Metal Surfaces. Norman H. March. Plenum, New York, 1986. xii, 284 pp., illus. \$52.50. Physics of Solids and Liquids.

Classification Algorithms. Mike James. Wiley-Interscience, New York, 1986. xii, 211 pp., illus. \$34.95.

Cleft Lip and Palate. Aspects of Reproductive Biology. Krishna R. Dronamraju. Thomas, Springfield, IL, 1986. xiv, 165 pp., illus. \$24.75.

Coal Science. An Introduction to Chemistry, Technology, and Utilization. Rita K. Hessley, John W. Reasoner, and John T. Riley. Wiley-Interscience, New York, 1986. xii, 269 pp., illus. \$35.

Color Atlas of Histology. Finn Geneser. Munksgaard, Copenhagen, and Lea and Febiger, Philadelphia, 1986. 231 pp. \$30.

Combinatorial Theory. Marshall Hall, Jr. 2nd ed. Wiley-Interscience, New York, 1986. xvi, 440 pp., illus. \$39.95. Wiley-Interscience Series in Discrete Mathematics.

Computers in Medicine. Michael Anbar, Ed. Computer Science Press, Rockville, MD, 1986. vi, 314 pp., illus. \$29.95. Applications of Computer Science Series.

Conceptions of Giftedness. Robert J. Sternberg and Janet E. Davidson, Eds. Cambridge University Press, New York, 1986. x, 460 pp., illus. \$49.50; paper, \$15.95. Based on a conference.

Data for Biochemical Research. Rex M. C. Dawson *et al.* 3rd ed. Clarendon (Oxford University Press), New York, 1986. xii, 580 pp., illus. \$59.

The Day the Universe Changed. James Burke. Little, Brown, Boston, 1986. 352 pp., illus. \$27.50.

The Defense Game. An Insider Explores the Astonishing Realities of America's Defense Establishment. Richard A. Stubbing with Richard A. Mendel. Harper and Row, New York, 1986. xvi, 447 pp., illus. \$21.50. A Bessie Book.

Development and Management of University Research Groups. Robert V. Smith. Illustrations by Sally Blakemore. University of Texas Press, Austin, 1986. xiv, 135 pp. \$17.50.

Developmental Neurobiology of the Autonomic Nervous System. Phyllis M. Gootman, Ed. Humana, Clifton, NJ, 1986. xx, 416 pp., illus. \$64.50. Contemporary Neuroscience.

Diagenetic Bedding. A Model for Marl-Limestone Alternation. Werner Ricken. Springer-Verlag, New York, 1986. x, 210 pp., illus. Paper, \$18. Lecture Notes in Earth Sciences, vol. 6.

Differentiation of Protoplasts and of Transformed Plant Cells. J. Reinert and H. Binding, Eds. Springer-Verlag, New York, 1986. viii, 157 pp., illus. \$49. Results and Problems in Cell Differentiation, 12.

Digital Satellite Communications. Tri T. Ha. Macmillan, New York, and Collier Macmillan, London, 1986. xxviii, 574 pp., illus. \$39.95. Macmillan Database/Data Communications Series.

The Dilemma of Difference. A Multidisciplinary View of Stigma. Stephen C. Ainsley, Gaylene Becker, and Lerita M. Coleman, Eds. Plenum, New York, 1986. xxiv, 262 pp., illus. \$29.50. Perspectives in Social Psychology. Based on an institute, Stanford, CA, July and Aug. 1982.

Fusarium Species. Their Biology and Toxicology. Abraham Z. Joffe. Wiley-Interscience, New York, 1986. xviii, 588 pp., illus. \$74.95.

GABAergic Mechanisms in the Mammalian Periphery. Sándor L. Erdő and Norman G. Bowery, Eds. Raven, New York, 1986. xxii, 377 pp., illus. \$89.

Grazing Research at Northern Latitudes. Olafur Gudmundsson, Ed. Plenum, New York, 1986. xii, 374 pp., illus. \$62.50. NATO Advanced Science Institutes Series A, vol. 108. From a workshop, Hvarnneyri, Ireland, Aug. 1985.

Hazardous Chemicals Data Book. G. Weiss, Ed. 2nd ed. Noyes, Park Ridge, NJ, 1986. xxiv, 1069 pp. \$98.

Hazardous Substances. A Reference. Melvin Berger. Enslow, Hillsdale, NJ, 1986. 128 pp. \$12.95.

Healthy Planting Material. Strategies and Technologies. D. Rudd-Jones and F. A. Langton, Eds. British Crop Protection Council, Thornton Heath, 1986 (U.S. distributor, ISBS, Portland, OR). xiv, 263 pp., illus. Paper, \$35. BCPC Monograph no. 33. From a symposium, Reading, UK, Jan. 1986.

A Heretical Cosmology. The Catastrophic Dislocations of Galaxies, Stars and Planets. Louis Jacot. Exposition Press of Florida, Pompano Beach, 1986. xiv, 152 pp., illus. \$19.95. An Exposition-Banner Book.

Herpes and Papilloma Virus. Their Role in the Carcinogenesis of the Lower Genital Tract. G. DePalo, F. Rilke, and H. zur Hausen, Eds. Raven, New York, 1986. xiv, 368 pp., illus. \$70. Sero Symposium Publications, vol. 31. From a symposium, Milan, Italy, March 1985.

Pest Control. Operations and Systems Analysis in Fruit Fly Management. Marc Mangel, James R. Carey,

(Continued on page 1451)

Products & Materials

Foot-Operated Microscope Focuser

The Motorfocus is a motorized device for smooth and precise focusing of stereomicroscopes. Activated by the foot of the user, the Motorfocus has adjustable preset controls that reproduce fine and coarse focusing with a two-speed drive. Light foot pressure starts the slow drive for smooth fine focusing at higher magnifications, and greater foot pressure shifts the device into the high drive for rapid focusing to distant object planes. Even at high drive speeds there is no overshoot or backlash; movement stops the instant the foot is removed. Manual focusing is also possible without disconnection of the Motorfocus. Goodfellow. Circle 568.

Thermal Microscope Stage

The TS-4ER thermal stage maintains temperatures as high as 100°C. It is designed for crystallography and other applications in which the control of specimen temperature is critical. The TS-4ER fits onto the mechanical stage of most microscopes so that it can be moved with the regular mechanical stage controls. A hole in the thermal stage admits transmitted light. Temperature is adjusted with controls on the front panel of the stage, and a digital display shows a continuous readout of stage temperature. The TS-4ER is accurate to 0.1°C. It operates with 110 or 220 volts alternating current and a trickle of running water. A needle microprobe included with the stage allows it to be used as an independent thermometer. Sentsortek. Circle 588.

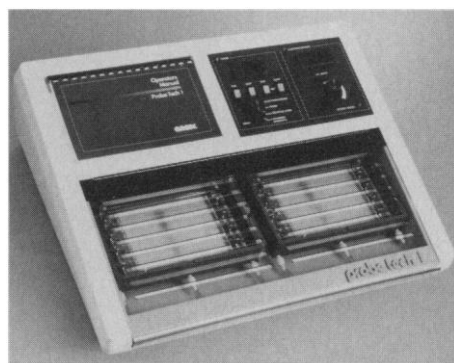
Calculator Software for Personal Computers

SolveIT is a software package that allows a personal computer with MS-DOS to function as a reverse Polish notation scientific calculator. The user can create a software library of customized programmable calculators, each with up to 40 functions. The number of steps in a program is limited only

by the size of the personal computer's memory, and 200 programs may reside in memory simultaneously. SolveIT's built-in functions include square, square root, power, x th root, 10^x , \log_{10} , sin, cos, tan, sinh, cosh, tanh, permutation, combination, truncation, rounding, polar-rectangular, rectangular-polar, random number, quadrant, degrees-radian, radians-degrees, absolute value, factorial, percent, percent difference, e , and π . Also, the user may define functions, which then may be used in programming. SolveIT compiles these user-defined functions so that they run faster. Functions may be sketched on the screen or printed. Programs, registers, and memories may also be printed. Structured Scientific Software. Circle 582.

Southern Genotyping Procedure System

Probe Tech 1 is a self-contained, microprocessor-controlled work station that performs electrophoresis, depurination, denaturation, and transfer of human DNA. By concentrating the electric field applied to the



gel and optimizing the running buffer, the work station reduces the duration of electrophoresis to about 2 hours. In-cartridge conditioning and vacuum-assisted transfer moves the DNA from gel to membrane in two additional hours. Probe Tech 1 processes one or two gels of 11 lanes each. It is sensitive enough to detect DNA in fragments of 100 to 25,000 base pairs. Gels need only be handled twice—once when loading and once when removing them after transfer. Oncor. Circle 584.

Automatic Preparative Gas Chromatograph

The PSGC-10/40 separates, isolates, and purifies chemicals and is well suited for the resolution of azeotropes, structural isomers, and materials with similar boiling points. It is available either as a manually operated

system or as a fully automated system. It includes features such as thermal conductivity detection, five collection traps and a waste trap, independent oven and vaporizer temperatures to 300°C, and safety alarms. The PSGC-10/40 accepts up to eight 1 cm by 1 m columns or four 4 cm by 1 m columns. A sample is injected into a vaporizer and mixed with a heated carrier gas. The sample-gas mixture then passes to the gas chromatography column, where sample components are separated. Separated fractions pass through the thermal conductivity detector to the appropriate condenser-collection trap. Varex Corporation. Circle 587.

Fluid Surface Tensiometer

The SensaDyne 6000 is a fluid surface tensiometer with a computer interface for linking with IBM PC's and compatibles. Measurements are made with probes immersed directly in the fluid, by means of a constant volumetric flow system. The operator is able to choose and precisely control the gas/fluid interface development time. With the computer, accurate, reproducible measurements may be made in spite of surface contamination or operator inexperience. Also, the computer hookup allows data to be displayed, printed, stored, and graphed with menu-driven software supplied with the instrument. The monitor displays fluid surface tension, fluid temperature, time, and bubble frequency. Tensiometer calibration curves are automatically set with a computer calibration program that prompts the operator through a calibration and numerical keyboard entry routine. Chem-Dyne Research Corporation. Circle 586.

Desktop Analysis Software

Parameter Manager is a computer program that aids in collection, storage, and analysis of data based on time, date, or sample. No programming or macros are required of the user. The software's functions include trend plots, strip charts, data compression charts, parametric plots, histograms, forecast charts, statistical tables, correlation tables, and high-low charts. Data may be entered from the keyboard or as text files from other computers, including IBM PC's and compatibles. The Parameter Manager requires a Macintosh Plus or an enhanced Macintosh with 512 kilobytes of random access memory, an 800-kilobyte internal disk drive, and a second disk drive. Structural Measurement Systems. Circle 606.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card and placing it in a mailbox. Postage is free.

(Continued from page 1449)

and Richard E. Plant, Eds. Springer-Verlag, New York, 1986. xii, 465 pp., illus. \$85. NATO Advanced Science Institutes Series G, vol. 11. From a workshop, Bad Windsheim, Germany, Aug. 1985.

The Pheasants of the World. Paul A. Johnsgard. Colour plates of paintings by Henry Jones. Oxford University Press, New York, 1986. xviii, 300 pp., illus. \$75.

Phenetics. Evolution, Population, Trait. A. V. Yablokov. Columbia University Press, New York, 1986. xiv, 171 pp., illus. \$25. Translated from the Russian edition (Moscow, 1986) by Marie Jaroszewska Hall.

The Physical Chemistry of Lipids. From Alkanes to Phospholipids. Donald M. Small with contributions by four others. Plenum, New York, 1986. xx, 672 pp., illus. \$89.50. Handbook of Lipid Research, vol. 4.

Physics of Plasma-Wall Interactions in Controlled Fusion. D. E. Post and R. Behrisch, Eds. Plenum, New York, 1986. xii, 1183 pp., illus. \$145. NATO Advanced Science Institutes Series B, vol. 131. From an institute, Val-Morin, Canada, July 1984.

Principles of Charged Particle Acceleration. Stanley Humphries, Jr. Wiley-Interscience, New York, 1986. xvi, 573 pp., illus. \$65.95.

The Prism of Science. The Israel Colloquium: Studies in History, Philosophy, and Sociology of Science. Vol. 2. Edna Ullmann-Margalit, Ed. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). x, 250 pp. \$44; paper, \$16. Boston Studies in the Philosophy of Science, vol. 95.

Probabilities in Everyday Life. John D. McGervey. Nelson-Hall, Chicago, 1986. x, 269 pp., illus. \$23.95.

Proceedings of the 14th ICGTMP. (Seoul, Aug. 1985.) Y. M. Cho, Ed. World Scientific, Singapore, 1986 (U.S. distributor, Taylor and Francis, Philadelphia). xiv, 667 pp., illus. \$79.

Proceedings of the Workshop on Non-Perturbative Methods. (Montpellier, France, July 1985.) S. Narison, Ed. World Scientific, Philadelphia, 1986. x, 464 pp., illus. \$67.

Protein Compartmentalization. Arnold W. Strauss, Irving Boime, and Günther Kreil, Eds. Springer-Verlag, New York, 1986. xiv, 140 pp., illus. \$36. Springer Series in Molecular Biology.

The Shikimic Acid Pathway. Eric E. Conn, Ed. Plenum, New York, 1986. viii, 347 pp., illus. \$55. Recent Advances in Phytochemistry, vol. 20. From a meeting, Pacific Grove, CA, June 1985.

The Sickled Cell. From Myths to Molecules. Stuart J. Edelstein. Harvard University Press, Cambridge, MA, 1986. xiv, 197 pp., illus. \$25.

Skin Models. Models to Study Function and Disease of Skin. Ronald Marks and Gerd Plewig, Eds. Springer-Verlag, New York, 1986. xxii, 437 pp., illus. Paper, \$85.

Social Origins of Distress and Disease. Depression, Neurasthenia, and Pain in Modern China. Arthur Kleinman. Yale University Press, New Haven, CT, 1986. xii, 264 pp. \$22.

Space Exploitation and Utilization. Gayle L. May et al., Eds. Published for the American Astronautical Society by Univelt, San Diego, CA, 1986. xvi, 724 pp., illus. \$70; paper, \$55. Advances in the Astronautical Sciences, vol. 60. From a symposium, Honolulu, Dec. 1985.

Space Station Beyond IOC. M. Jack Friedenthal, Ed. Published for the American Astronautical Society by Univelt, San Diego, CA, 1986. xii, 176 pp., illus. \$40; paper, \$30. Advances in the Astronautical Sciences, vol. 59. From a conference, Los Angeles, Nov. 1985.

Steroid Hormone Resistance. Mechanisms and Clinical Aspects. George P. Chrousos, D. Lynn Loriaux, and Mortimer B. Lipsett, Eds. Plenum, New York, 1986. xiv, 439 pp., illus. \$69.50. Advances in Experimental Medicine and Biology, vol. 196. From a symposium, Bethesda, MD, June 1984.

Understanding Our Environment. R. E. Hester, Ed. The Royal Society of Chemistry, London, 1986 (U.S. distributor, American Chemical Society, Washington, DC). xiv, 333 pp., illus. \$77.

United States Food Laws, Regulations, and Standards. Y. H. Hui. 2nd ed. Wiley-Interscience, New York, 1986. 2 vols. xxii, 682 pp., illus. and xxii, 704 pp., illus. \$100.

Yeast Cell Biology. James Hicks, Ed. Liss, New York, 1986. xxii, 671 pp., illus. \$125. UCLA Symposia on Molecular and Cellular Biology, New Series, vol. 33. From a symposium, Keystone, CO, April 1985.

Youth Violence. Programs and Prospects. Steven J. Apter and Arnold P. Goldstein, Eds. Pergamon, New York, 1986. xiv, 301 pp., illus. \$37.50. Pergamon General Psychology Series, vol. 135.

Personnel Placement

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

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AQUATIC CHEMISTS, LIMNOLOGISTS, ECOLOGISTS

The Environmental Research Center of the University of Nevada, Las Vegas, is seeking a **quality assurance (QA) expert** and a **limnologist or water quality chemist** to participate with a multidisciplinary team in EPA's acid rain environmental monitoring and effects research program. Applicants should have, as a minimum, a Ph.D. degree in ecology, limnology, aquatic chemistry, or related field and extensive experience (design, participation, management, and/or evaluation) with major field studies. The applicant for the QA Expert position should also have experience in the application of QA to field and laboratory programs. For both positions, excellent communication skills are imperative. Research experience related to acid rain phenomena is desirable. Individuals on sabbatical or similar arrangement will be considered for either position and postdoctoral fellows will also be considered for the water quality chemist/limnologist position.

Salary will be based on experience and qualifications. Interested candidates please write and send résumé and salary history to: **Dr. David N. McNelis, Director, Environmental Research Center, University of Nevada, Las Vegas, Las Vegas, NV 89154.** Closing date: 31 December 1986. *Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR: Psychobiology/Neuroscience Program in the Department of Psychology is seeking qualified candidates for a tenure-track, assistant professor position to begin August 1987. Candidates should have received their Ph.D. within the last 5 years, have an established publication record, and be qualified to teach courses at the undergraduate and graduate levels in basic neuroscience, behavioral neurochemistry (pharmacology), as well as own specialty area. Research interests should be in molecular or pharmacological mechanisms in the CNS at the systems level with special relevance to behavior. Excellent facilities and technical support available. Applicants should submit curriculum vitae and representative publications, and have sent three letters of recommendation to: **Search Committee, Psychobiology/Neuroscience Program, Department of Psychology, Florida State University, Tallahassee FL 32306-1051.** Applications completed before 12 February 1987 will be considered. *Florida State University is an Equal Opportunity Employer.*

The University of California, Los Angeles (UCLA), Department of Kinesiology, Division of Life Sciences, invites applications from individuals with research expertise in movement dynamics including robotics, as it relates to an integrated view of the motor and neural control of movement. This is a tenure-track **ASSISTANT PROFESSOR** position, effective either academic year 1987 or 1988. Applicants should have a Ph.D. or M.D. degree and at least 2 years of postdoctoral training or comparable experience. The appointee will be expected to conduct an independent research program and teach at undergraduate and graduate levels. The salary will be commensurate with qualifications. Submit curriculum vitae, statement of research interests, reprints, and names and addresses of three individuals who may be contacted for letters of reference to: **Professor V. R. Edgerton, Chairman, Department of Kinesiology, College of Letters and Science, 2854 Slichter Hall, UCLA, Los Angeles, CA 90024.** Deadline for receipt of applications is 30 January 1987.

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The College of Public Health at the University of South Florida (USF) is seeking applicants for a tenure-track position at the level of **ASSOCIATE OR ASSISTANT PROFESSOR** in the Department of Environmental and Occupational Health. The candidate should be a highly motivated individual with an active research program emphasizing the biologic or health effects of hazardous chemical wastes. The applicant will also be expected to significantly contribute to the teaching programs of the college. The candidate should have an M.D. or Ph.D. degree with a strong interest in analytic methods for quantifying hazardous waste and ground water and soil pollutants. Salary is commensurate with experience. A curriculum vitae and brief statement describing current and future research activities should be sent to:

Stuart M. Brooks, M.D., Chairman
Department of Environmental and
Occupational Health
College of Public Health, MHH 104
13301 North 30 Street
University of South Florida
Tampa, FL 33612

Applications must be received no later than 31 January 1987. *USF is an Equal Opportunity/Affirmative Action Employer.*

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Professor and Head
Department of Physiology
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ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology at the Johns Hopkins University School of Medicine seeks outstanding candidates for one or two positions at the level of **assistant professor** who are interested in **molecular endocrinology, or membrane physiology**. For example, the specific interest could be intercellular communication, hormone receptors, electrophysiology of membrane transport, or intracellular responses, but other topics will be equally welcome. Excellence in research and teaching will be the prime criteria.

Applications should include curriculum vitae, list of publications, and statement of research plans. Completed applications and letters of recommendation, solicited by the applicant, should be received no later than 1 February 1987 by:

Dr. John W. Littlefield
Director, Department of Physiology
Johns Hopkins University School of Medicine
725 North Wolfe Street
Baltimore, MD 21205

An Equal Opportunity/Affirmative Action Employer. Applications from all qualified candidates will be welcome, and applications from minorities and women are encouraged.

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR
Gray Freshwater Biological Institute
P.O. Box 100
County Roads 15 and 19
Navarre, MN 55392

A faculty position is available at the Gray Freshwater Biological Institute in the College of Biological Sciences of the University of Minnesota. The opening is for a person to conduct research on metabolism of organic compounds. Applicants must have a Ph.D. in microbiology, biochemistry, chemistry, or genetics with a minimum of 2 years postdoctoral experience in one or more of the following areas: microbial genetics, molecular biology, biochemistry, biophysics, or related field. A Ph.D. with 4 years of postdoctoral experience in one or more of these areas is desired.

To be considered, the candidates must have demonstrated through published research that they have made significant contributions to science and are capable of directing a high quality, independently funded research group. It is anticipated that the position will be filled at the assistant professor level; however, qualified applicants may be appointed at the associate professor level.

Teaching responsibilities in University of Minnesota Departments of Microbiology or Biochemistry will be negotiated with those departments.

Tenure will reside in the appropriate academic disciplinary department.

Applications must be received by 15 March 1987. Applicants should be able to start as soon as possible after 1 July 1987. Starting salary range is \$20,000 to \$40,000, based on an academic year. Applicants are asked to submit a letter describing their scientific background, curriculum vitae, and three letters of recommendation to: **SEARCH COMMITTEE-CBS 315, Gray Freshwater Biological Institute, P.O. Box 100, Navarre, MN 55392; telephone: 612-471-8476.**

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

BROWN UNIVERSITY Assistant Professor, Biochemistry

A full-time, tenure-track appointment for an assistant professor is available as of 1 July 1987 in the Section of Biochemistry, Division of Biology and Medicine. We seek someone investigating biochemical mechanisms or biological phenomena at the molecular level. This person will be expected to develop an independent research program and participate in the teaching of an integrated biochemistry curriculum for undergraduate, graduate, and medical students. The section is part of the graduate program in molecular biology, cell biology, and biochemistry. The candidate should have a doctoral degree and at least 2 years of postdoctoral research experience.

Send curriculum vitae, a brief statement of research plans, and have three letters of recommendation forwarded no later than 1 February 1987 to:

Dr. Albert E. Dahlberg
Section of Biochemistry
Brown University, Box G—JWWL
Providence, RI 02912

Brown University is an Equal Opportunity/Affirmative Action Employer

ASSISTANT PROFESSOR OF BIOLOGY

Tenure-track position, effective 1 September 1987. Ph.D. required. Teach introductory courses and upper division courses in specialty. Suitable specialties include microbiology, development, and cell or invertebrate physiology. Teaching in interdisciplinary programs possible. We encourage research involving undergraduates.

Send curriculum vitae, summary of academic training, brief statement of teaching and research interests, and names of three references to: **Dr. John Shepherd, Biology Department, College of Liberal Arts, Mercer University, Macon, GA 31207.** *Women and minorities are encouraged to apply.* Deadline: 9 January 1987. *Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOCHEMISTRY. A tenure-track position at the level of assistant professor is available in the Graduate Department of Biochemistry. *We are seeking high quality applicants from all segments of the scientific community.* Area of research interests is open. Curriculum vitae, description of research interests, and letters of recommendation should be sent to: **Dr. Christopher Miller, Chairman, Search Committee, Graduate Department of Biochemistry, Brandeis University, Waltham, MA 02254.** *Brandeis University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF BIOLOGY

The Biology Department at Oberlin College invites applications for a full-time, continuing faculty position beginning 1 July 1987, with a 4-year appointment.

Teaching responsibilities will include a course in immunology and another in virology or some other molecular biology offering and coordination of a human biology course for nonmajors. Participation in the full range of faculty responsibilities, including academic advising, service on committees, and sustained scholarly research is expected. Start-up funds are available. This position is partially supported by a grant from the Charles A. Dana Foundation, which requires that applicants have not previously held faculty appointment at Oberlin College.

Candidates must have the Ph.D. degree in hand or expected by 1 June 1987 and demonstrated interest and potential excellence in undergraduate teaching. Previous teaching experience is desirable.

Submit applications including curriculum vitae, academic transcripts, and at least three letters of reference to: **David H. Benzing, Chair, Biology Department, Oberlin College, Oberlin, OH 44074,** by 15 January 1987. Application materials received after that date may be considered until the position is filled.

ASSISTANT PROFESSOR OF ENDOCRINOLOGY: Tenure-track position—applicants in endocrinology with approaches that interface with cardiovascular or nervous systems are encouraged. Successful candidate is expected to develop a vigorous, independent research program. Teaching responsibilities include a graduate course in area of expertise and participation in a professional course in reproduction. Send curriculum vitae, bibliography, and names of three references by 31 December 1986 to: **Dr. Charles D. Barnes, Department of VCAPP, Washington State University, Pullman, WA 99164-6520.** *Washington State University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE PROFESSOR—GENETICS (tenure track). Department of 17 with Ph.D. program seeks biologist to teach undergraduate and graduate genetics and to develop a strong research program in any area of genetics. Preference will be given to candidates with research experience in molecular techniques. Send curriculum vitae, a statement of research and teaching interests, and the names, addresses, and telephone numbers of three referees by 1 February, 1987 to: **R. Dimock, Chair, Department of Biology, Wake Forest University, Winston-Salem, NC 27109-7325.** *Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF PHARMACOLOGY. Applications are invited for a tenure-track faculty position in a research-oriented Department of Pharmacology. Minimal qualifications include a Ph.D. or M.D. degree with strong postdoctoral experience. Candidates must be capable of establishing an independent research program and collaborative ties with existing faculty. Active research programs include cardiovascular, biochemical toxicology, and neuropharmacology. Send curriculum vitae, statement of research goals, and names of four evaluators to: **Chairman, Pharmacology Search Committee, Department of Pharmacology, College of Medicine, University of Illinois at Chicago, 835 South Wolcott, Chicago, IL 60612.** To assure full consideration, apply by 12 January 1987. *The University of Illinois is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.*

MOLECULAR IMMUNOLOGIST (M.D./Ph.D.)

Merck Sharp & Dohme Research Laboratories is seeking a Molecular Immunologist for a key leadership position. The position involves the scientific management of multiple programs of research and drug discovery as well as the development of new ones. The successful candidate must be a capable leader of scientists and will be responsible for the administrative and scientific management of a large group.

Requirements include an M.D. or Ph.D. degree with several years of experience and an established reputation at the national level in the field of molecular immunology, demonstrated by a strong record of accomplishments and publications. The desire to be involved in multidisciplinary research and drug discovery efforts, excellent communication skills, and demonstrated leadership abilities are essential qualifications for the position. Previous administrative experience is highly desirable.

Merck Sharp & Dohme Research Laboratories are located in Rahway, New Jersey approximately 20 miles south of New York City. Our salaries, benefits, and growth potential are excellent.

Interested candidates should submit their curriculum vitae and salary requirements to: **Ms. Alaina L. Love, Merck Sharp & Dohme Research Laboratories, P.O. Box 2000, R80M-TL-1, Rahway, New Jersey 07065.**

EQUAL OPPORTUNITY EMPLOYER



Merck & Co., Inc.

DEAN, INFORMATION STUDIES DREXEL UNIVERSITY

The trustees of Drexel University are seeking a Dean for the College of Information Studies to begin Summer, 1987. The position is a 12-month faculty appointment with tenure. **The College**, nearly 100 years old, is considered among the strongest and most progressive such schools in the world. Educational programs include a professional M.S. degree with specializations in information science, library science, and information systems; a Ph.D. degree with specializations in management, communication, and information systems; an advanced (post-M.S.) certificate; and a B.S. degree in information systems. The College awards about 95 M.S. degrees, 2 or 3 Ph.D.s, and several advanced certificates annually. The B.S. degree, which requires 5 years of study and employment, will be awarded to the first full class of about 40 students in 1989. **The faculty** provide leadership in the information field through their significant research and publications. They currently number 14, augmented by adjunct faculty and teaching assistants. Eight faculty are tenured. **The successful candidate** must have appropriate academic credentials and experience in teaching and in research, and must have demonstrated successful administration and leadership of creative people. **As a primary requirement, the dean administers the College's educational programs.** In addition, he or she must advocate vigorously for the College both inside and outside the University; lead the development of future-oriented education and research programs; and actively recruit new faculty to support the College's evolution. It is critical that he or she must be able to represent effectively the established and emerging aspects of the College, including library and information services, information science, information management, and information systems. **Inquiries and nominations are welcomed.** To apply, please send letter of application, curriculum vitae, and names of three references, by February 1, 1987, to Belder C. Griffith; Chair, Dean Search Committee; College of Information Studies; Drexel University; Philadelphia, PA 19104.

Drexel University invites applications from
minorities and women

MEDICAL AFFAIRS CLINICAL DATA AUDITOR

Squibb Corporation, a leader in the pharmaceutical industry, is expanding the Quality Assurance group in the Division of Medical Affairs. This position is located at our World Headquarters in Princeton, New Jersey.

The individual selected will be involved in auditing clinical trials (Phase 1-4), and preparing reports and recommendations related to the audits. The position will require some travel for on-site review of clinical research studies.

The highly motivated individual we seek should possess BS/MS Degree in a Life Science or Pharmacy with approximately 3 years experience within the pharmaceutical industry with exposure in the clinical areas. He/she should also have a proven ability to prepare and analyze scientific/technical reports, exhibit excellent communication skills and possess familiarity with regulatory compliance guidelines (GCPs) pertaining to the pharmaceutical industry.

If you meet the criteria set forth above and are seeking a challenging, fast-paced environment where your activities will have an impact on diverse programs, please send your resume, including salary requirements, in confidence to: **Squibb Corporation, Employment Office, Department RW 410, P.O. Box 4000, Princeton, NJ 08543-4000.** An Equal Opportunity Employer.



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Where science comes to life.

Applications are invited for several
research scientist positions with one of
France's biggest companies.

The company is located near PARIS.
A new

Neuropharmacological Research Division

is being established and positions are available for
scientists with training in :

BIOCHEMISTRY ENDOCRINOLOGY BEHAVIOUR BIOLOGY

Candidates hold a PhD or an equivalent degree
in one of these disciplines and have substantial
experience in neuropharmacological research.

Applicants should submit, at their earliest convenience, their C.V., list of publications, selected reprints, statement of research interests and list of three references to **PUBLIVAL/11008**
27 Route des Gardes 92190 MEUDON (FRANCE).

POSITIONS OPEN

ASSISTANT PROFESSOR OF CHEMISTRY. An opening is available for a regular faculty position with tenure possible starting fall of 1987 in the **Department of Chemistry at Connecticut College**. The primary teaching responsibilities for the position include the development of an outstanding general chemistry program, and involvement in an instrumental methods course. The successful candidate will be expected to develop an active research program in which undergraduates can participate. Research programs in any subspecialty of chemistry except organic are appropriate. Applicants must have a Ph.D. degree, and postdoctoral experience is preferred, but not required. Candidates should arrange to have three letters of recommendation sent independently, and should submit a curriculum vitae and brief statements of teaching and research plans no later than 23 January 1987 to: **Professor Bruce R. Branchini, Department of Chemistry, Box 1401, Connecticut College, New London, CT 06320.** *Connecticut College is an Equal Opportunity, Affirmative Action Employer and encourages applications from minorities and women.*

INSECT PARASITE INTERACTIONS—The Department of Entomology at Oregon State University (OSU) seeks an **ASSISTANT PROFESSOR** for a 12-month, tenure-track position (88 percent research, 12 percent teaching) in the broad area of insect physiology as it relates to parasites, parasitoids, or pathogens of insects. Candidates with demonstrated excellence in any of the physiological, toxicological, or molecular aspects of parasite interactions with insect hosts will be considered. Academic training and experience in basic and applied sciences are desirable. Applicants should send curriculum vitae, transcripts, a description of research and teaching interests, and arrange for at least three letters of reference to be sent to: **Dr. R. Feyerisen, Chair, Search Committee, Department of Entomology, OSU, Corvallis, OR 97331.** Application deadline is 15 January 1987. *OSU is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.*

ASSISTANT PROFESSOR OF PHARMACOLOGY AND TOXICOLOGY. Applications are invited by the Department of Pharmacology and Toxicology, University of Arizona College of Pharmacy, for an assistant professor with research interests in toxicology. The applicants should possess a Ph.D. degree in toxicology, pharmacology, or related disciplines; two or more years of postdoctoral experience; demonstrated excellence in research; and an active interest in teaching at both the undergraduate and graduate levels. The candidates will be expected to establish and support an independent research program. Areas of specific interest to the department include, but are not limited to: neurotoxicology, immunopharmacology and toxicology, developmental toxicology, and molecular and/or cellular pharmacology. Applicants should send a detailed curriculum vitae and three letters of recommendation by 15 February 1987 to: **Dr. I. Glenn Sipes, Head, Department of Pharmacology and Toxicology, College of Pharmacy, The University of Arizona, Tucson, AZ 85721.** *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT RESEARCH PHYSICIST SPACE SCIENCES LABORATORY UNIVERSITY OF CALIFORNIA BERKELEY

The Space Sciences Laboratory of the University of California at Berkeley has an opening for an assistant research physicist to participate in design and use of an infrared stellar interferometer. The position is for a period of 2 years beginning 1 January 1987, and is part of a long-range project. The annual salary range begins at \$34,600.

Applicants must have a Ph.D. in physics with postdoctoral experience in infrared detection and interferometry. Experience in laboratory experiments, systems work, and astronomical observations are desirable.

Send résumé by 26 December 1986 and a list of references to:

Professor Charles H. Townes
Space Sciences Laboratory
University of California
Berkeley, CA 94720

The University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

The Smith College Physics Department invites applications for a tenure-track position in experimental physics at the **Assistant Professor** level. The candidate should have a Ph.D., an interest in teaching, and research interests amenable to collaboration with undergraduates. Funds are available to establish a research program. *Located in western Massachusetts, Smith College is a leader in the education of women and has an outstanding record in the number of professional women physicists who are alumnae.* The Five College Consortium, comprised of Smith, Amherst, Mount Holyoke, and Hampshire Colleges and the University of Massachusetts provides a rich intellectual and cultural life for faculty and students, as well as additional collegial opportunities in teaching and research. A curriculum vitae, statement of teaching and research interests and experience, and three letters of reference should be sent to: **Professor Elizabeth Ivey, Chair, Department of Physics, Clark Science Center, Smith College, Northampton, MA 01063.** Applications should be received by 1 February 1987. *Smith College is an Equal Opportunity Employer.*

ASSISTANT PROFESSOR PLANT BIOLOGY—MICROBIOLOGY

The Program in Biology of Transylvania University invites applications for a tenure-track assistant professorship, effective September 1987. Primary responsibilities include undergraduate teaching of plant biology, microbiology, and general biology. Doctorate required, college-level teaching experience desirable. Send letter of application and curriculum vitae to: **Dr. Rodney Hays, Program in Biology, Transylvania University, Lexington, KY 40508.** *An Equal Opportunity Employer.*

The Department of Soil Science, Faculty of Agriculture, University of Manitoba, invites applications for a full-time, tenure-track position in **SOIL MICROBIOLOGY** at the rank of **ASSISTANT PROFESSOR**, commencing 1 July 1987. A Ph.D. degree in soil microbiology or microbiology is required. The successful candidate will be required to: (i) teach undergraduate and graduate courses, (ii) develop an active research program in her/his area of specialization, and (iii) supervise postgraduate students. Salary will be commensurate with qualifications and experience; the floor value for assistant professor is \$28,389. *Both women and men are encouraged to apply. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.* Send applications with a detailed curriculum vitae including a summary of present and future research interests, academic transcripts, and names of three referees by 28 February 1987 to: **Dr. G. J. Racz, Department of Soil Science, University of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2.**

ASSISTANT PROFESSORSHIPS

The Biochemistry and Molecular Biology Department of the Medical University of South Carolina has two tenure-track positions to be filled by 1 July 1987. A Ph.D. and at least 2 years of postdoctoral experience are required. Qualified individuals with research interests in the areas of **physical biochemistry and molecular biology** are invited to apply. The successful applicant is expected to establish an independent research program and to participate in the teaching activities of the department. The deadline for application is 15 February 1987. Letter of application, curriculum vitae, and the names of at least three references should be sent to: **Dr. Barry E. Ledford, Department of Biochemistry and Molecular Biology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.**

Equal Opportunity/Affirmative Action Employer

ASSOCIATE IN RESEARCH POSITION available 1 January 1987. Lead team effort in chemotaxonomy of 250 Azolla accessions. A M.S. or Ph.D. in plant sciences with experience in electrophoresis and technical writing. Application review begins 1 December 1986. Provide résumé, transcripts, and three letters of reference to:

Dr. H. H. Cheng, Interim Chairman
Agronomy and Soils Department
Washington State University (WSU)
Pullman, WA 99164-6420

WSU is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT RESEARCH SCIENTIST COLLEGE OF ENGINEERING THE UNIVERSITY OF MICHIGAN

The Department of Atmospheric and Oceanic Science, Space Physics Research Laboratory is seeking qualified applicants to fill a permanent position at the level of assistant research scientist or postdoctorate in the area of small-scale ocean wave measurements and analysis. This position is in support of the university's Research Initiative Program in Ship Hydrodynamics and has guaranteed support for 2 years. The successful applicant is expected to aid in the design, implementation of, and conduct basic research using laser-based measurements of small-scale surface wave structure and to develop his/her own research program. Letters of interest, résumés, and lists of three references should be forwarded to: **Guy A. Meadows, Department of Naval Architecture and Marine Engineering, North Campus, The University of Michigan, Ann Arbor, MI 48109-2143.** Please respond before 31 December 1986. *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.*

ASSOCIATE RESEARCH SCIENTIST needed for basic studies on the effect of aging on the optical system of the eye (presbyopia). Doctoral degree in physiology, optometry, or equivalent is required. Please send curriculum vitae to: **Laszlo Z. Bito, Ph.D., Ophthalmology Research, Columbia University, College of Physicians & Surgeons, 630 West 168 Street, New York, NY 10032.**

Columbia University is an Equal Opportunity/Affirmative Action Employer.

ASSOCIATE SCIENTIST/SCIENTIST

Genentech, Inc., a leader in the field of biotechnology, has an opening for an associate scientist/scientist in our Developmental Biology group to apply FAB-MS/MS to protein structural analysis of naturally occurring and recombinant proteins, working closely with the protein sequencing group. A state-of-the-art four sector mass spectrometer will be available in house.

The successful candidate will have a relevant Ph.D. with a minimum of 2 years of postdoctoral training which should include experience with sector-type MS.

Genentech offers competitive salaries and benefits coupled with the opportunity to make a significant contribution to our organization. Please send résumé to: **Human Resources Department Number 0485, Genentech, Inc., 460 Point San Bruno Boulevard, South San Francisco, CA 94080.** *An Equal Opportunity Employer.*

The Department of Psychology, University of Colorado, Boulder, is seeking a **BEHAVIORAL GENETICIST** to fill a tenure-track position beginning September 1987. Applicants must have a Ph.D. and demonstrated ability for superior teaching and research. We seek candidates in any area of behavioral genetics. However, those with expertise in behavioral development or neurogenetics are especially urged to apply. The position is at the assistant professor level; however, applications from exceptional senior candidates will also be considered. Send curriculum vitae, statement of interest, and three letters of reference to: **J. R. Wilson, Chairperson, Behavioral Genetics Search Committee, Department of Psychology, University of Colorado, Boulder, CO 80309-0345.** Closing date is 15 February 1987.

The University of Colorado at Boulder has a strong institutional commitment to the principle of diversity. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities and disabled individuals.

Environmental Division of a multi-industry corporation has employment opportunities for B.S., M.S. and Ph.D.'s with expertise in any of the following areas: limnology, water quality, modeling, aquatic biology, fisheries, oceanography, impact assessment. All positions require good writing and communication skills. We offer a challenging technical environment and an excellent benefits package including paid health, dental, and vision benefits; Performance Sharing Plan; educational benefits and a Christmas holiday shutdown. Please send résumé to: **Monica C. Ballard, Martin Marietta Environmental Systems, 9200 Rumsey Road, Columbia, MD 21045.** *Equal Opportunity Employer, M/F.*

ORGANON TEKNIKA CORPORATION

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From our patenting of the ELISA technology, to our breakthrough in the isolation of HTLV-III and the demonstration of its etiologic role in AIDS, the many scientific "firsts" pioneered by the research professionals of Organon Teknika amply illustrate our firm commitment to improving the quality of life through innovation in high technology health care.

We are OTC—Organon Teknika Corporation—the American subsidiary of AKZO Pharma, the pharmaceutical division of the 7.2 billion dollar and internationally known AKZO. Last year, Organon Teknika Corporation acquired two divisions of Warner Lambert—General Diagnostics and Nuclear Medical Laboratories—and the Bionetics Division of Litton. These acquisitions have enabled us to continue and expand upon our leadership role in the marketplace as a premier supplier of state-of-the-art diagnostic test and dialysis/phoresis products.

—Sr. Research Associates

Well qualified candidates will have a Ph.D. in Engineering or Physics and a minimum of five years research experience in the design and development of opto-mechanical instrumentation; diagnostic test/medical instrumentation background is high desirable.

—Engineers

Our Engineers must have blood analysis and diagnostic instrumentation experience.

—Electronic (Analog/Digital)

Ideal candidates possess several years "concept through commercialization" experience in the development of electronic instrumentation products. Hardware expertise should include microprocessor-control; stepper motor interface; pumps; position pressure and temperature sensors; optical systems; vacuum fluorescent and liquid crystal displays; and capacitive touch and membrane key pads. Experience with computer-directed instrumentation control; data acquisition and data reduction is highly desirable.

—Software Development

Well qualified candidates will possess several years of experience in the development of real-time operation control software for electronic pro-

ducts, including real-time data acquisition, hardware control, image processing, device drivers, multi-processors, database systems and data communications. A fundamental knowledge of various operating systems, such as microprocessor assembly and communication network software would be advantageous.

—Mechanical Design

Several years experience developing mechanical hardware for motion-control instruments and a design background to include motor, pump, sensor mounting and alignment brackets, PCB mounting, control panel displays/keypads, and product enclosures is preferred. A knowledge of "robot" mechanical arm and injection-molded plastics technologies is also highly desirable.

—Regulatory Affairs

We are currently recruiting three Regulatory Specialists. The successful candidates will be responsible for preparing regulatory submissions for new and amended products; providing consultation to our R&D staff regarding labeling; and administering the preparation and submission of international and domestic registration documentation. Position qualifications are a B.S. with preferably an M.S. or Ph.D. in chemistry, biology or a related science; several years of industrial experience, preferably in the regulatory or project management area; effective oral and written communicative abilities; and experience filing with the Federal Drug Administration.

Our corporate location is adjacent to Research Triangle Park, North Carolina, a growing, high technology and low unemployment area that is near three reputable universities and offers its inhabitants a nationally recognized quality of life. Wouldn't you like to explore the unique opportunities that emanate from being part of a start-up team? If so, then look to the future. . . it begins with us.

If your educational and professional qualifications have prepared you for outstanding achievements in a world class research environment, we encourage you to apply for Opportunities That Count. Please send your resume to: **Organon Teknika Corporation, P.O. Box 13867, Dept. DB, Research Triangle Park, North Carolina 27709.** No recruiters, agencies, or phone calls please.



An equal opportunity employer M/F/H/V.

POSITIONS OPEN

ASSOCIATE STUDY DIRECTOR, BIOTECHNOLOGY

MICROBIOLOGICAL ASSOCIATES INC. is expanding its biotechnology product safety testing services. We have a newly created position for an associate study director in our Biotechnology Services Department to be located in our recently constructed headquarters and diagnostic facility in Rockville, MD.

We seek a Ph.D. in microbiology/virology/molecular biology, with 2 to 4 years of postdoctoral experience in general or clinical virology or microbiology. The position would involve working with in-house staff and clients to supervise ongoing studies, developing new study protocols with client companies for biotechnology product safety testing, and responsibility for assuring the quality of technical performance. Familiarity with federal Good Laboratory Practices (GLP) regulations is desirable. Willingness to acquire new areas of technical expertise in response to changing needs and a preference for involvement in commercial enterprise rather than pure research are essential.

MICROBIOLOGICAL ASSOCIATES INC. offers a comprehensive company-paid benefits package. For more information, please contact: **Constance J. Kepner, MICROBIOLOGICAL ASSOCIATES INC., 5221 River Road, Bethesda, MD 20816; telephone: 301-654-3400.**

BIOLOGIST: The Division of Science, Mathematics, and Engineering, University of South Carolina (USC) at Sumter, invites applications for a tenure-track position for fall 1987 for a broadly trained zoologist. Duties include teaching human anatomy and physiology for nursing students and the teaching of other freshman and sophomore courses emphasizing evolution, animal diversity, and ecology. A candidate with a demonstrated commitment to undergraduate education and a Ph.D. in biology is sought. To apply, send curriculum vitae, transcripts, and three letters of reference by 15 January 1987 to: **Dr. Bob Nerbun, Chairman of Science, Mathematics, and Engineering, University of South Carolina at Sumter, Sumter, SC 29150-2498. USC-Sumter is an Affirmative Action/Equal Opportunity Employer.**

CELL BIOLOGIST-PHYSIOLOGIST. Teach undergraduate courses in both fields and direct undergraduate research. Teach entry-level courses in liberal arts context. Ph.D. required. Prefer teaching experience, knowledge of computer data acquisition. Noncitizens must have permanent residency, work permit. *Affirmative Action/Equal Opportunity Employer.* Send curriculum vitae, transcripts, and three reference letters to: **Dr. W. B. Julian, Dean's Office, Central College, Pella, IA 50219, by 1 January 1987.**

CHAIR IN BIOLOGICAL SCIENCES DEPAUL UNIVERSITY

The Department of Biological Sciences, DePaul University, invites applications for the position of chairman of the department. Responsibilities will include administration, teaching, and research. Candidates should demonstrate excellence and leadership in both research and teaching. The department is beginning a period of change created by a number of retirements, and the new chairman is expected to direct and develop the department during this period. The successful candidate will bring an established research program, and a record of research and research student training. Applicants in the broad areas of cell biology, endocrinology, genetics, microbiology, molecular biology, and plant physiology/development are encouraged.

The department consists of eight full-time faculty with a wide diversity of research interests, offers both B.S. and M.S. degrees, and has about 200 undergraduate majors. Applications should be submitted by 15 March 1987. Send curriculum vitae, description of research program, academic and administrative philosophies, and the names of three references to:

**Dr. Robert C. Thommes, Professor
Department of Biological Sciences
DePaul University
1036 West Belden Avenue
Chicago, IL 60614**

*DePaul University is an Equal
Opportunity Employer and Educator*

POSITIONS OPEN

BIOCHEMIST AND PHARMACOLOGIST at the **San Juan Bautista School of Medicine.** Faculty position with rank appropriate to experience. Requirements include Ph.D. or equivalent. Send curriculum vitae to: **Dr. Ruth D. Fogleman, Dean of Academic Affairs, G.P.O. Box 71365, San Juan, PR 00936-7365.**

CHAIRMAN DEPARTMENT OF ANATOMY MARSHALL UNIVERSITY SCHOOL OF MEDICINE

The Marshall University School of Medicine is inviting applications or nominations for the position of chairman, Department of Anatomy, available on or before 1 July 1987. Candidates must possess a Ph.D. and/or M.D. degree and have demonstrated experience in administration and excellence in research and teaching medical graduate students. Applicants or nominations should be received by 30 January 1987, and should include curriculum vitae and names with addresses of three references to:

**Dr. Gary O. Rankin
Anatomy Chairman Search Committee
Marshall University School of Medicine
Huntington, WV 25704-2901**

An Equal Opportunity/Affirmative Action Employer

CHEMICAL ECOLOGY FACULTY POSITION, tenure-track available in the Department of Chemistry at assistant or associate professor level starting 1 September 1987. Applicants with a Ph.D. in organic or bioorganic chemistry showing outstanding potential for conducting research and teaching in multidisciplinary programs concerned with the origin, function, and significance of natural chemicals that mediate interactions among organisms should send graduate and undergraduate transcripts, curriculum vitae, description of proposed research plans and requirements, and the names and addresses of three references to: **Chairman, Chemical Ecology Search Committee, Department of Chemistry, SUNY College of Environmental Science and Forestry, Syracuse, NY 13210. Equal Opportunity/Affirmative Action Employer.**

CLINICAL HISTOCOMPATIBILITY TECHNOLOGIST

The University of Texas Health Science Center at San Antonio is recruiting for a clinical histocompatibility technologist (research associate) position. A master's degree and 2 years of experience, or a bachelor's degree and 4 years of experience in histocompatibility testing are required. HLA typing, antibody screening, MLC, and crossmatch testing are a must. Cell analyzer experience is preferred. On-call rotation is a necessary aspect of this position. Excellent benefits and career opportunities. Please forward résumés to: **the Human Resources Department, Employment Section, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284, or contact 515-691-6116 for further information.**

Equal Opportunity/Affirmative Action Employer

DIRECTOR UNIVERSITY OF TENNESSEE (UT) OAK RIDGE GRADUATE SCHOOL OF BIOMEDICAL SCIENCES

UT/Oak Ridge Graduate School of Biomedical Sciences invites persons of established scientific stature to apply for the position of director. This program enjoys school status within the University of Tennessee, Knoxville (UTK), and support from Oak Ridge National Laboratory (ORNL). The school is located within the ORNL Biology Division and has access to resources of this major federal laboratory. Major research strengths include molecular and mammalian genetics and carcinogenesis. This 20-year-old program involves 30 faculty and 40 graduate students, most at the Ph.D. level. Responsibilities of the position include administration of the school and continuation of an active research program. The appointment will be at the full professor level, tenurable through a life sciences department at the university. Send letter of interest and résumé by 1 March 1987 to: **Associate Dean H. McSweeney, 226 Ayres Hall, University of Tennessee, Knoxville, TN 37996. UT is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

DIRECTOR (Midwest Location)

Opportunity now exists for an experienced pharmaceutical scientist to head the R&D Department. Responsibilities include supervision of R&D Department activities with assignments spanning from developing new dosage form, biopharmaceutic/pharmacokinetic data, to filing ANDA's and NDA's.

Applicant must have Ph.D. or equivalent degree in pharmacy, biochemistry, or pharmaceutical sciences, with 3 to 5 years of experience in pharmaceutical R&D.

We offer competitive salary, benefits, and opportunity to make significant contribution to our organization. Please send résumé to: **Box 225, SCIENCE.**

DIRECTOR CALIFORNIA PRIMATE RESEARCH CENTER University of California, Davis Davis, CA

Applications and nominations are invited for **Directorship of California Primate Research Center (CPRC)** available 1 July 1987. The director is responsible for management of the laboratory with 24 core and 64 affiliate scientists, 19 collaborating scientists, and 100 graduate students; overall management of research programs; administration through contracts between the *University of California and the Division of Research Resources, National Institutes of Health*, and 35 extramural grants and contracts. CPRC research programs relate to selected human health problems for which the nonhuman primate is the animal model of choice, and have a theme of effects of environmental influences. Major programs in developmental and reproductive biology, fetal and neonatal medicine, respiratory diseases, behavioral biology/pathobiology and primate medicine. The colony consists of approximately 2700 nonhuman primates.

An applicant should have demonstrated success in administration; be a scientist of stature who has made significant contributions in a biomedical field, and have an intent to remain active as an investigator. A background in some aspects of primatology is beneficial, but not essential. The director is expected to qualify for, and will be appointed to, a professional title in an appropriate department on the Davis campus.

Applicants should submit curriculum vitae with the names of three references to: **Dean E. A. Rhode, School of Veterinary Medicine, University of California, Davis, CA 95616, by 31 December 1986.**

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

PHARM. D. (Doctor of Pharmacy)—East Carolina University School of Medicine is currently seeking a Doctor of Pharmacy to head section on clinical pharmacy in the family medicine department. Responsibilities for this position will include teaching medical students, family medicine residents, supervising pharmacokinetics laboratory, and monitoring retail pharmacy. This position is open to Doctor of Pharmacy only. Qualified and interested individuals should send résumé with references to: **James G. Jones, M.D., Department of Family Medicine, EAST CAROLINA UNIVERSITY, P.O. Box 1846, Greenville, NC 27835-1846. An Equal Opportunity/Affirmative Action Employer.**

ELECTRON MICROSCOPIST PROCTER & GAMBLE COMPANY

Ph.D. in biological sciences or physical/polymer chemistry. Demonstrated experience with TEM, SEM, cryotechniques, computers and digital image processing. Postdoctoral and laboratory management experience desirable. Assignment will focus on applying EM to collaborative projects involving drugs, polymers, surfactants, food systems, and cellulose-based materials. Laboratory equipped with Hitachi S-800 SEM, Hitachi 12A TEM, Hitachi H-500 TEM/STEM, ETEC Autoscan SEM, Cameca MBX microprobe, and (soon) Zeiss 902 TEM with EELS. U.S. citizens or permanent resident visa only. Send résumé and publication list to: **Dr. T. J. Logan, Manager, Ph.D. Recruiting, Electron Microscopy Position, The Procter and Gamble Company, Miami Valley Laboratories, P.O. Box 39175, Cincinnati, OH 45247. An Equal Opportunity Employer.**

**Department of Health and Human Services
Public Health Service
Food and Drug Administration
Center for Food Safety and Applied Nutrition
SCIENTIFIC AND ADMINISTRATIVE POSITIONS:**

The Food and Drug Administration's Center for Food Safety and Applied Nutrition's Office of Toxicological Sciences is seeking experienced individuals in the fields of pharmacokinetics and ocular toxicology. Scientists with a Ph.D. Degree in the fields of Pharmacology, Physiology, Biochemistry, Toxicology, and related fields are encouraged to apply.

- The Pharmacokinetics position involves developing physiologically-based pharmacokinetic modeling of toxicants which potentially enter the nation's food supply.
- The ocular position involves the development of an active research program in ocular toxicology which requires the ability to develop alternatives to ocular testing.

SALARY: \$26,381 to \$48,876 per annum. Salary history required.

TO APPLY: Submit Personal Qualifications Statement (SF-171), curriculum vitae, and transcript or listing of college or university courses by January 12, 1987 to:

Food and Drug Administration
Personnel Office
Room 1825; 200 'C' Street, S.W.
Washington, D.C. 20204
ATTN: Denise Harris

THE FOOD AND DRUG ADMINISTRATION IS AN EQUAL OPPORTUNITY EMPLOYER.

RESEARCH ASSOCIATE CENTER FOR CANCER RESEARCH

The position is that of a Research Associate in a biochemistry laboratory to work on the analyses of the processing of RNA, perform chemical analyses of RNA structures and to use sensitive techniques for electrophoretic separation of ribonucleoprotein complexes in gels. The applicant must have a Ph.D. in Biochemistry and expertise in research on the chemical analysis of RNA and on the expression of eukaryotic genes. The applicant must have 2-3 years' working experience in a biochemistry laboratory and must have demonstrated the ability to work independently and to do novel and creative research in molecular biology.

Salary range: \$21,400-\$23,000

To apply, send two copies of resume (attention: Job #R86-145) to Dr. Phillip Sharp, c/o MIT Personnel Office, E19-239, 77 Massachusetts Avenue, Cambridge, MA 02139.

**MIT is an equal
opportunity/
affirmative
action employer.**

MIT

SCIENCE, ENGINEERING AND DIPLOMACY FELLOWSHIP

Applications Invited

The American Association for the Advancement of Science (AAAS), in cooperation with the Agency for International Development (AID) and the Department of State (STATE) is seeking applicants for two or more Science, Engineering and Diplomacy Fellowships. Fellows will spend 1 year, beginning 1 September 1987, working either in the Bureau of Oceans and International Environmental and Scientific Affairs of the Department of State or in one of several Bureaus of the Agency for International Development. Other assignments may also be possible.

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

The fellows will serve a 1-year appointment at a salary consistent with education level and experience, if possible, but not exceeding the GS-12 level (beginning at \$32,567). A security clearance process will be initiated after selection. The clearance must be obtained before a selectee can begin work in the State Department or AID and the fellowship award is contingent upon the selectee obtaining this clearance.

Deadline for receipt of application is 15 January 1987. For more information and application details, write:

Science, Engineering and Diplomacy Fellows Program
American Association for the Advancement of Science
1333 H Street, NW
Washington, DC 20005

Postdoctoral Scientist

The Department of Advanced Drug Delivery of Smith Kline & French Laboratories is seeking a highly motivated Postdoctoral Scientist to conduct research in the area of intestinal salt and water transport using electrophysiologic techniques together with cell culture. The position offers the opportunity to work with state-of-the-art technology during the design and development of techniques to investigate the mechanisms and regulation of epithelial ion transport. Close collaboration with leading academicians and encouragement to publish results in leading journals combine to make this a unique and excellent opportunity for personal and professional growth.

Candidate qualifications include: Ph.D. in Physiology, Cell Biology or Biochemistry; experience with cell culture technology; proven ability to work independently; strong oral and written communication skills and willingness to travel.

This position is available for up to three years.

SK&F Laboratories is located near Valley Forge, Pennsylvania in a new state-of-the-art research facility. We offer an excellent salary, benefits and relocation package as well as opportunities for personal and professional growth. We encourage and support publication of research results. Please forward your CV to Robert F. Obst, R&D Employment Consultant, SmithKline Beckman Corporation, 1562 Spring Garden Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/H/V.

SK&F

A SmithKline Beckman Company

Due to the continued expansion of our business and our move to larger quarters at the Massachusetts Biotechnology Research Park in Worcester, MA in early 1987, Cambridge BioScience has immediate openings for outstanding professionals in the following areas:

ALL LEVELS Molecular Biology

- Recombinant DNA
- DNA sequencing
- Expression of cloned genes

Immunology

- Cellular immunology
- Antiidiotypic antibodies

Virology

- Human retroviruses
- Virology diagnostics

Protein Chemistry

- Protein chemistry purification and characterization
- Chemical modification of proteins

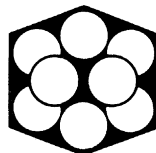
Process Development

- Experience in downstream processing of rec. proteins
- Fermentation of rec. microorganisms

Product Development

- Development of immunoassays for infectious diseases
- Industrial experience in ELISA and fluorescent product formats

Cambridge BioScience offers a unique and challenging opportunity for personal and financial growth. Qualified applicants should send resume and salary requirements to: **Cambridge BioScience Corporation, Personnel Department, 35 South Street, Hopkinton, MA 01748.**



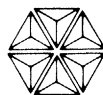
**Cambridge
BioScience**

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

MOLECULAR VIROLOGIST

Applied bioTechnology is a growing company specializing in:

- *genetically engineered vaccines for the veterinary and human markets*
- *novel products for cancer diagnostics and therapeutics based on oncogene technology*

We are seeking a highly motivated individual with a strong background in basic virology and conversant with modern molecular biological technology to participate in the development of vaccinia virus-based vaccines.

Please submit your curriculum vitae to:

Applied bioTechnology, Inc.

80 Rogers Street
Cambridge, MA 02142

An equal opportunity employer m/f



SCIENTIST

Warner-Lambert/Parke-Davis has an immediate opening in its Chemotherapy Department for a Scientist.

The duties of this position will be to evaluate radiosensitizing activity of agents against tissue culture cell lines, conduct biochemical/cell biology studies to determine their mechanism of action in a number of in vitro systems including multicellular spheroids, develop new models to predict radiosensitizing activity against human tumors, develop methods for assessment of normal tissue toxicity, collaborate with in vivo radiosensitizer efforts.

The successful candidate will have a Ph.D. or equivalent in radiation biology, pharmacology, or related discipline, 1-5 years postdoctoral training in radiobiology or cancer chemotherapy. Strong background in biochemistry and cell biology is desirable.

Our research facilities, adjacent to The University of Michigan campus in Ann Arbor, Michigan, are among the finest and best equipped in the world and are devoted exclusively to the discovery and development of new drugs. We offer excellent compensation, benefits and working environment. Qualified candidates should forward resume together with salary requirements to: **Ms. R. Chapman, Human Resources Supervisor, WARNER-LAMBERT/PARKE-DAVIS, 2800 Plymouth Road, Ann Arbor, Michigan 48105.**

**WARNER
LAMBERT**

"EQUAL OPPORTUNITY IN ACTION"

We are one of the leading french pharmaceutical companies with a successful history in drug discoveries.

Developping our research forces, we offer a unique opportunity for scientists to join our **experimental rheumatology research department**.

Positions are available for :

A research immunology scientist

- Cellular immunology,
- immunochemistry,
- experimental pathology.

Previous experience in immuno-rheumatology is required.

A research pharmacology scientist

With experience in the field of inflammatory processes and rheumatologic diseases.

Biostatistic background will be taken into consideration (STAB or equivalent experience).

Both candidates should have a PhD in immunology or pharmacology with, if possible, some experience in rheumatology.

Location nearby suburb west of PARIS.

Please send detailed Curriculum Vitae to

PUBLIVAL/11025,

27 Route des Gardes 92190 MEUDON (FRANCE).

Director of Clinical Affairs

An established Minnesota-based biotechnology company is seeking a full-time MD or MD/PhD to organize and administer clinical treatment trials and help analyze data, supervise IND preparation, and co-ordinate FDA approval requirements. The company has expanding human health care programs in adoptive cellular immunotherapy, cellular immunology, and vaccine development.

A successful candidate will be board-certified in internal medicine and have subspecialties in oncology/hematology and excellent communications skills. Previous experience in IND and FDA approval processes, clinical affairs management, and human health research will be helpful. The individual must be energetic, flexible, and capable of working in a rapidly growing organization. A competitive salary, stock, and benefit package is offered.

Send *curriculum vitae* to :

Dr. F. Jerry Volenec

Director, Cell Culture Production

Laboratories

ENDOTRONICS, Inc.

8500 Evergreen Blvd.

Coon Rapids, MN 55433



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Pioneering Cellular Engineering

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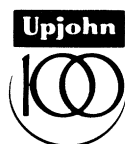
Cell Biology Research

The Department of Cell Biology, a basic research/support Unit of The Upjohn Company, has openings for research associates at

the MS degree level and having relevant experience in the following areas: the study of guanine nucleotide binding proteins and receptors plus a strong background in protein purification; the transport of membrane proteins as studied in a cell free system requiring expertise in enzyme assay, purification, subcellular fractionation and tissue culture; immunology concerning T cell differentiation and function with emphasis on the molecular biological and biochemical aspects with experience in DNA/RNA technology, tissue culture and protein biochemistry. Candidates should have a demonstrated ability to work independently and will be expected to contribute intellectually.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a rich mix of cultural, educational and recreational pursuits including numerous lakes and a four-season climate. Upjohn offers the opportunity for career growth, a competitive salary commensurate with experience, a comprehensive benefits program and relocation assistance.

For confidential consideration, please call from outside of Michigan toll free 1/800/253-8600, ext. 3-6767, (inside Michigan call collect 616/323-6767) to request an employment application be sent to you immediately. Please refer to ad number 1834-A when calling.



A Century
of Caring
1886-1986

An Equal Opportunity Employer M/F

JUNIOR FACULTY

THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY is seeking applicants for a tenure-track, assistant professor position in human language and speech or reasoning and knowledge representation. The opening is part of an initiative to foster computational approaches to the cognitive and brain sciences. The candidate must have a strong mathematical or formal background and demonstrate expertise in devising computational algorithms applicable to understanding information processing by the mammalian brain. The subject of the candidate's research can pertain to the perception or production of language and speech, hearing, conceptual organization and inference, semantic memory, modeling of human expertise, knowledge acquisition, or related topics. Candidates should be prepared to teach graduate and undergraduate subjects and to develop funded research programs. Depending on the interests and training of the candidate, the appointment will be either in the Department of Electrical Engineering and Computer Science, Linguistics and Philosophy or the Department of Brain and Cognitive Sciences and may be joint with the Artificial Intelligence Laboratory or the Research Laboratory of Electronics.

Applicants should send their resume, reprints and the names of three references by February 1, 1987 to Professor W. Richards, E10-120, Massachusetts Institute of Technology, 79 Amherst Street, Cambridge, MA 02139.

MIT is an equal opportunity employer. Qualified women and minorities are encouraged to apply.

MIT

POSITIONS OPEN

ENVIRONMENTAL STUDIES FACULTY POSITION. Small liberal arts college near San Francisco seeks Ph.D. in the natural or physical sciences to direct upper division program in international environmental studies. Prefer international experience in the areas of agriculture, health, or appropriate technology. Send curriculum vitae and the names of three references by 15 January 1987 to: IES Search Committee, World College West, 101 South San Antonio Road, Petaluma, CA 94952.

NEW YORK UNIVERSITY, DEPARTMENT OF CHEMISTRY, invites applications for a tenure-track faculty position in bioorganic or biophysical chemistry at either a tenured or nontenured level, commencing September 1987. If suitable candidates are identified, it is possible that both a junior and senior level appointment will be made, as part of a major development in chemistry underway at the Washington Square campus of New York University, including expansion and improvement of the research facilities of the department. Applicants at the associate or full professor level should have a distinguished record of achievement in research. All applicants should have a Ph.D. in chemistry or biochemistry, should have a major commitment to conducting a vigorous and innovative research program, and to teaching courses at the graduate and undergraduate levels normally offered by a chemistry department in a major university. Applicants should submit as soon as possible their curriculum vitae, list of publications, a summary of past research accomplishments, an outline of present and proposed research interests, and should arrange for at least three letters of reference to be sent to: **Professor David I. Schuster, Chair, Faculty Search Committee, Department of Chemistry, New York University, New York, NY 10003.** Applications will be processed on arrival, and should be received by 15 February 1987, to assure full consideration. *New York University is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN MICROBIAL GENETICS

The School of Applied Biology, Georgia Institute of Technology, invites applications for a tenure-track faculty position at the assistant professor rank. Applicants should have research experience and teaching interest in molecular genetics of prokaryotes or microbial eukaryotes. We are particularly seeking candidates with interest in industrial microbiology, genetic engineering, natural products, and related biotechnology subjects. Candidates selected will participate in the Research Center for Biotechnology at Georgia Tech. Candidates will be selected based on teaching ability, strength of research programs, and ability to complement departmental research interests.

Send curriculum vitae, description of proposed research, and the names of three references to: **Thomas G. Tornabene, Director, School of Applied Biology, Georgia Institute of Technology, Atlanta, GA 30332. Telephone: 404-894-3735.** Closing date is 28 February 1987. *The Georgia Institute of Technology is a unit of the University System of Georgia and is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN CELL BIOLOGY—University of Kansas at Lawrence. The Department of Physiology and Cell Biology invites applications for a tenure-track position at the assistant professor level. Postdoctoral experience is required and we seek applicants with solid evidence of productivity. Preference will be given to individuals with a background in biochemistry and/or molecular biology. Duties will include conducting a vigorous research program, participating in teaching cell biology courses, and directing graduate student research programs. Applicants must provide a statement of research and teaching interests and goals, a complete résumé, copies of publications and grant applications, and arrange to have three letters of reference sent to:

**Dr. Sally K. Frost, Chairperson
Department of Physiology and Cell Biology
Haworth Hall—University of Kansas
Lawrence, KS 66045**

The University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

NEUROSCIENCE PROGRAM MARYLAND PSYCHIATRIC RESEARCH CENTER FACULTY POSITION

The Neuroscience Program of the Maryland Psychiatric Research Center, University of Maryland, invites applications for a faculty position at the associate or full-professor level to assume leadership of the Neuroscience Program and implement its future expansion. The successful applicant will be expected to conduct a vigorous research program in one of the following areas: developmental neurobiology, neuroanatomy, or physiological psychology. The earliest available starting date is 1 July 1987. Letters of application, including curriculum vitae, bibliography, a statement of future research interests, and the names of at least three (3) references should be sent by 1 February 1987 to: **Edward D. French, Ph.D., Maryland Psychiatric Research Center, P.O. Box 21247, Baltimore, MD 21228.**

MSU-DOE PLANT RESEARCH LABORATORY Michigan State University Faculty Position in Plant Biology

The MSU-DOE Plant Research Laboratory has a tenure-track faculty position available which can be filled at the assistant or associate professor level. Applications are being sought from researchers who will be working toward the mechanistic understanding of fundamental questions in plant biology using modern experimental approaches of biochemistry, genetics, or cell and molecular biology.

The Plant Research Laboratory is operated under a contract from the U.S. Department of Energy and provides a stimulating atmosphere and excellent facilities for research in the plant sciences. Faculty members are jointly appointed in an appropriate academic department. Generous laboratory space and set-up support, as well as continuing research funding, will be provided.

Applicants should have postdoctoral experience with demonstrated productivity and evidence of potential for independent research; senior applicants should have an established, independent research program. In order to assure consideration, applications should be received preferably by 30 January 1987. Applications including curriculum vitae, description of research accomplishments and future interests, and three letters of recommendation should be sent to: **Dr. Hans Kende, Director, MSU-DOE Plant Research Laboratory, Michigan State University, East Lansing, MI 48824.** *Michigan State University is an Equal Opportunity/Affirmative Action Employer.*

AUSTRALIA THE UNIVERSITY OF MELBOURNE FACULTY OF SCIENCE CHAIR OF BOTANY

The University of Melbourne invites applications for the chair of botany which has become vacant as a consequence of the resignation of **Professor T. C. Chambers** to become director of the Royal Botanic Gardens and Domain, Sydney.

Following a major external review, the School of Botany has identified areas of ecology, ecophysiology, evolutionary botany, developmental botany, or marine botany as appropriate areas to be strengthened in the appointment of a new professor.

Accordingly, applicants are sought with a distinguished background in one or more of these areas and who have demonstrated a capability to provide significant academic leadership within the School of Botany, Faculty of Science, and the university.

SALARY: \$A58,348 per annum.

Further information about the position, application procedure, superannuation, travel and removal expenses, housing assistance, and conditions of appointment is available from the Registrar. All correspondence (marked "confidential") should be addressed to: **The Registrar, The University of Melbourne, Parkville, Vic. 3052, Australia.**

Applications close on 21 January 1987.

The university reserves the right to fill the chair by invitation.

Equal Opportunity in Employment is the policy of the University of Melbourne.

POSITIONS OPEN

FACULTY POSITIONS BIOMOLECULAR STRUCTURE AND FUNCTION THE PENNSYLVANIA STATE UNIVERSITY

Applications are invited for two tenure-track positions at any level as part of an expanded research concentration in the area of biomolecular structure and function. Candidates are being sought in each of the following areas: (i) protein crystal structure determination and (ii) macromolecular computer graphics/energy calculations. The university has made a major commitment in this area including laboratory space and equipment necessary for the individual research programs such as x-ray diffractometer including area detector, and computer graphics system. The positions will be available in either the Department of Chemistry, the Department of Molecular and Cell Biology, or as joint appointments in these departments. Joint affiliation with the newly formed Penn State Biotechnology Institute is also a possibility. Faculty already in the area include **Drs. S. J. Benkovic, G. A. Hamilton, W. DeW. Horrocks, Jr., K. A. Johnson, Juliette Lecomte, C. R. Matthews, D. I. Shalloway, and J. J. Villafranca.** Applicants should have the background, motivation, and ability to develop vigorous, productive research programs and to be excellent teachers. Reply to: **Search Committee for Biomolecular Structure and Function, Department of Chemistry, 152 Davey Laboratory, Box B2, University Park, PA 16802.** Please indicate the area for which you are applying. Include a detailed curriculum vitae, statement of research interests, and up to three recent representative reprints. In addition, the applicant should ask three individuals to send letters of reference directly to us. Review of applications will commence in January 1987. Deadline for receipt of applications is 1 March 1987, or until suitable candidates are identified.

An Equal Opportunity/Affirmative Action Employer

UNIVERSITY OF PENNSYLVANIA SCHOOL OF MEDICINE: Department of Pathology and Laboratory Medicine is currently seeking applicants with M.D., M.D./Ph.D. or Ph.D. degrees for **junior faculty positions** in the Sections of Clinical Chemistry, Hematology, and Microbiology starting July 1987. Candidates should be Board-eligible or -certified and have a commitment to a research-oriented career in laboratory medicine. Excellent opportunities exist in basic and applied areas of research. Applications with curriculum vitae and names of three references should be sent to: **Dr. Donald S. Young, Department of Pathology and Laboratory Medicine, Hospital of the University of Pennsylvania, 3400 Spruce Street/4283, Philadelphia, PA 19104.** *The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.*

INSECT DEVELOPMENTAL GENETICIST THE PENNSYLVANIA STATE UNIVERSITY

ASSISTANT PROFESSOR OF ENTOMOLOGY, 12-month, tenure-track. Develop research program in molecular biology emphasizing developmental genetics. Teach insect development and morphology. Cooperate with other university programs and the Biotechnology Institute. Ph.D. in molecular biology, genetics, entomology, or related area. Application deadline: 1 March 1987, or until a qualified candidate is found. Send curriculum vitae, statement of research goals, transcripts, and names and addresses of five references to: **C. W. Pitts, Head, Department of Entomology, Box S, 106 Patterson Building, Penn State University, University Park, PA 16802.** *An Affirmative Action/Equal Opportunity University.*

Molecular Endocrinology Group of the Wadsworth Center for Laboratories and Research of the New York State Department of Health is seeking an accomplished investigator for a tenure-track position. Applicants must have a Ph.D. or equivalent degree in molecular endocrinology or biochemistry with 2 to 4 years of postdoctoral experience in recombinant DNA research. The selected candidate is expected to actively participate in an ongoing project on the estrogen-induced early molecular events in immature rat uteri. Résumés may be sent to: **Dr. H. W. Dickerman, Director, Wadsworth Center for Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, NY 12201.** *Affirmative Action/Equal Opportunity Employer.*

Renal Pharmacology

The Pharmacology Department of Smith Kline & French Laboratories, located in suburban Philadelphia, Pennsylvania, is seeking outstanding junior, senior and postdoctoral scientists to:

- conduct research on mechanisms of renal function and disfunction and cardiovascular-renal integration.
- work collaboratively with inter- and extra-mural scientists to study the role of renal mechanisms in the pathogenesis of disease.
- publish results in scientific journals; present results at local and national meetings.

Candidates are required to have:

- a B.S., M.S. and/or Ph.D. in Pharmacology, Physiology or Biological Sciences.
- expertise, understanding and/or demonstrated interest in mechanisms of epithelial solute and water handling, diuretic/natriuretic hormones, renal nerve activity and/or renal failure.
- specific training and experience with renal cell culture, renal epithelial techniques, renal clearance techniques, small and large animal CV-renal physiological techniques and surgical skills, and/or pathophysiological animal models of CV-renal disease.
- a record of publication in major scientific journals.

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. Publication of research results is encouraged and supported. For confidential review, please forward your C.V. and names of three references to: Robert F. Obst, R&D Employment Consultant, SmithKline Beckman Corporation, 1556 Spring Garden Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/H/V.

SK&F
A SmithKline Beckman Company

Biotechnology Scientists

MYCOGEN CORPORATION is a rapidly growing biotechnology company specializing in the development of crop protection products. We currently have the following positions available for persons with the following skills:

BIOCHEMIST: PhD with minimum of two years postdoctoral or industrial experience in protein chemistry. Experience in organic chemistry is also desirable. Duties will include purification/modification of polypeptides and also chemical modification of membranes.

ENTOMOLOGIST: PhD with minimum of three years industrial experience in field development. Principal responsibilities will be to organize and conduct plot tests of experimental microbial insecticides. Experience in laboratory and greenhouse aspects of insecticide development is desirable.

DNA SEQUENCER: B.S. level person with experience in DNA sequencing to work with a very dynamic group involved in DNA analysis.

MYCOGEN offers competitive salaries and benefits and an exceptional working environment. An application for these positions can be made by sending a resume complete with salary history to:



Personnel Department
Mycogen Corporation
5451 Oberlin Drive
San Diego, CA 92121

An Equal Opportunity Employer

1987 DISTINGUISHED VISITING SCIENTISTS PROGRAM

for research in laboratories of the
U.S. Environmental Protection Agency

EPA's Office of Research and Development is seeking distinguished engineers or scientists to participate in the Agency's Distinguished Visiting Scientists Program in the following areas:

- Transport and transformation of air pollutants
- Studies of toxics biodegradation in wastewater, research on drinking water microbiology and risk management for toxics and asbestos
- Biomarkers for human exposure assessment and biochemical analytical techniques
- Immune, reproductive and genetic toxicology for marine organisms
- Research on wetlands and ecological effects of acid rain, air pollutants or global climate changes
- Genetic and cellular toxicology of environmental pollutants related to health effects

Assignments, which will be at an EPA laboratory, may be on a full- or part-time basis and from one to three years in duration.

For submission requirements and other information on the program, contact Roger Cortesi, phone 202/382-5750, or write to:

Roger Cortesi, Director
Office of Exploratory Research (RD-675)
U.S. Environmental Protection Agency
401 M Street, Southwest
Washington, DC 20460

EPA is an equal opportunity employer

Postdoctoral Position (Biotechnical)

EG&G Idaho, Inc., Prime Operating Contractor for the Department of Energy's Idaho National Engineering Laboratory (INEL) near Idaho Falls, Idaho is currently seeking candidates for a Postdoctoral Position in **Environmental Mycology**. This position involves responsibility for the isolation, identification, and maintenance of a wide variety of fungi and collaboration with other scientists in work involving the fungal degradation of organic (polymers, solvents) and inorganic (rock phosphate) substances as well as basic research with endomycorrhizae and ectomycorrhizae.

The successful candidate must have a demonstrated expertise in the field of mycology and will have familiarity with all classes of terrestrial fungi, a background in biochemistry, and will have demonstrated aptitude for conducting laboratory research as well as the ability to execute a research program leading to peer-reviewed journal publications is imperative.

Idaho Falls is located in the heart of the country's most scenic recreational areas. If interested and qualified please submit resume, with salary history, in confidence to **Salary and Staffing Services, (MHD-4), EG&G Idaho, Inc., P.O. Box 1625, Idaho Falls, Idaho 83415**. U.S. citizenship required. We are an equal opportunity employer M/F/H/V.



EG&G Idaho, Inc.

POSITIONS OPEN

The Department of Biological Chemistry, University of Michigan Medical School, invites applications for a tenure-track **FACULTY POSITION** at the rank of **ASSISTANT PROFESSOR**. Candidates should have (i) a Ph.D. in biochemistry or molecular biology with a strong chemical background, (ii) significant postdoctoral training, (iii) experience and interest in teaching biochemistry and molecular biology, and (iv) a well-conceived plan of independent research to address fundamental biological problems at the molecular level, preferably in one of the following areas: structure and function of chromatin, mechanism of oncogenesis, genetic control of differentiation, chromosome replication and repair, and nucleic acid/protein interactions. Exceptional candidates would be considered for a more senior position. Please send résumé to: **Dr. M. J. Coon, Chairman, Department of Biological Chemistry, University of Michigan Medical School, Box 0606, Ann Arbor, MI 48109.** A nondiscriminatory, Affirmative Action Employer.

THREE FACULTY POSITIONS IN APPLIED BIOCHEMISTRY/ MOLECULAR BIOLOGY OREGON GRADUATE CENTER

The Department of Chemical and Biological Sciences at the Oregon Graduate Center is seeking to expand research and teaching programs in biotechnology. We are now inviting applications for the following faculty positions:

Bioorganic Chemist: Strong background in organic and biochemistry. Candidates with interests in enzyme mechanisms involved in biodegradation and/or synthesis are particularly encouraged to apply.

Microbial Biochemist: Strong background in biochemistry or molecular biology with interests in the degradation of natural and/or man-made materials.

Plant Molecular Biologist: Specialization in the molecular biology or genetics of higher plants.

All candidates should have a Ph.D. and several years of postdoctoral experience, and are expected to develop a strong research program and graduate level courses in their areas of specialty. Appointments will be made at the level of assistant professor or higher, depending on qualifications.

Interested candidates should send curriculum vitae, a statement of research interests, and the names, addresses, and telephone numbers of three references by 15 January 1987 to: **Dr. Michael H. Gold, Search Committee Chair, Department of Chemical and Biological Sciences, Oregon Graduate Center, 19600 NW Von Neumann Drive, Beaverton, OR 97006-1999.** Affirmative Action/Equal Opportunity Employer.

IMMUNOLOGIST MEDICAL COLLEGE OF OHIO

The Department of Microbiology is seeking an established immunologist to develop and run a new Immunology Program. This will involve the recruitment of a number of additional faculty members. The college is prepared to make a major investment of capital, start-up funds, and suitably equipped space for this program.

We are only interested in candidates who have a record of significant research in cellular immunology and/or in molecular immunology. The successful applicant also must be capable of attracting extramural funding. Please send curriculum vitae, three letters of recommendation, a statement of research goals, and ideas for development of the Immunology Program to: **Earl H. Freimer, M.D., Department of Microbiology, Medical College of Ohio, C.S. number 10008, Toledo, OH 43699.**

MOLECULAR BIOLOGY. Tenure-track, assistant professor appointment to begin 26 August 1987 (contingent upon funds) for Ph.D. to teach graduate level molecular biology, freshman biology, and other advanced courses. Develop research program in molecular or developmental biology. Send letter stating teaching and research interest and experiences, curriculum vitae, reprints, and letters from three references before 20 January 1987 to: **Dr. Paul M. Nollen, Department of Biological Sciences, Western Illinois University (WIU), Macomb, IL 61455.** WIU is an Affirmative Action/Equal Opportunity Employer. Applications from minorities, women, and handicapped persons are especially encouraged.

POSITIONS OPEN

TENURE-TRACK FACULTY POSITIONS INSTITUTE FOR BIOMEDICAL COMPUTING WASHINGTON UNIVERSITY

We are seeking individuals who have a deep commitment to biomedical research using modern engineering and technical methodologies and who can draw upon the broad range of technical and biomedical research expertise at Washington University.

The institute, established in 1984, incorporates the Biomedical Computer Laboratory and the Computer Systems Laboratory in an academic unit attached jointly to the School of Medicine and the School of Engineering and Applied Science. The laboratories, since 1964, have carried out a broad interdisciplinary research program in biomedical computing, bioengineering, and computer system design through collaborations with faculty of the schools of medicine and engineering, research professionals, and students.

Current institute emphasis is on quantitative biomedical imaging, with applications to positron-emission tomography, radiation treatment planning, ultrasonic tissue characterization, and electron microscopic autoradiography. Related technical developments include a network for image presentation, acquisition, and quantification, and specialized processors for multidimensional image computations and display.

Those interested in such areas, or with the ability to develop new research appropriate to the institute's program and Washington University's strengths, are invited to submit résumés to: **Charles E. Molnar, Sc.D., or Lewis J. Thomas, Jr., M.D., Institute for Biomedical Computing, Box 8036, Washington University, St. Louis, MO 63110.** Washington University is an Equal Opportunity/Affirmative Action Employer, M/F/H/V.

TUFTS UNIVERSITY HEALTH SCIENCES DEPARTMENT OF BIOCHEMISTRY

The Department of Biochemistry invites applications for **THREE TENURE-TRACK POSITIONS** available in mid-1987 at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. The department serves the Schools of Medicine, Dental Medicine, Veterinary Medicine, and the Sackler School of Graduate Biomedical Studies. The department plans to build strength especially in molecular biological approaches to biochemical problems, eukaryotic gene organization and expression, and structural analysis of macromolecules. Candidates should have either demonstrated high level experience or very high potential for developing creative research programs that will be nationally recognized. Applicants should send curriculum vitae, several reprints, summary of planned research, and have three letters of reference sent to: **Biochemistry Search Committee, Department of Biochemistry, Tufts University Health Sciences Campus, 136 Harrison Avenue, Boston, MA 02111, before 1 March 1987.**

Tufts University is an Equal Opportunity/Affirmative Action Employer.

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

LABORATORY DIRECTOR, U.S. Grain Marketing Research Laboratory, Manhattan, Kansas. ARS is seeking an individual from one of the following academic disciplines for the position of laboratory director of the U.S. Grain Marketing Research Laboratory: Research entomologist, research chemical engineer, agricultural engineer, research plant pathologist, research chemist, and microbiologist. In addition to directing a comprehensive research program on grain from harvest through storage and processing, the position requires conduct of personal research in the candidate's own area of specialization related to grain science. Candidate must have a background of successful leadership of research programs. Possession of the Ph.D. is desirable. Must be a U.S. citizen. Salary is commensurate with experience (\$53,308 to \$69,301). For information on the position, contact: **The Area Director's Office, Central Plains Area; telephone: 515-239-8414.** For information on application procedures/forms, contact: **Lee Triplett; telephone: 301-344-1863.** Applications in response to this advertisement should be marked 6N015. Inquiries must be received by 30 January 1987. An Equal Opportunity Employer.

ASSISTANT/ASSOCIATE PROFESSOR - PLANT CELLULAR/MOLECULAR GENETICS (TENURE TRACK: Teaching - Research). Person sought with training and experience in plant cellular and molecular genetics to join a large Department of Plant Science (crop science, soil science, weed science, plant pathology, horticulture, entomology) in the College of Agriculture. Individual will be part of a team of scientists from the Departments of Botany, Molecular Biology, Animal Science, Agricultural Engineering and Economics in developing a center of excellence in forage crop physiology, genetics, ecology, production and utilization.

The Department of Plant Science is leading a major thrust in developing a model forage system for Wyoming and the Inter-Mountain West. The program is university wide and multidisciplinary consisting of a research team composed of basic and applied scientists. This position and three others currently being advertised (forage breeder and two cellular/molecular biologists) are expected to contribute further to the program. Facilities are outstanding and include modern and newly constructed and equipped laboratories in the Departments of Plant Science, Molecular Biology and Botany. A well equipped campus greenhouse and field areas are also available. This program is further strengthened by a recently awarded NSF-EPSCoR grant to support a College of Agriculture and university commitment to build an intercollege biotechnology program.

Candidate should have enthusiasm for a research team approach and be capable of interacting with the other principals. Instruction is an essential component and may include graduate/undergraduate courses in genetics, cell/tissue culture or area of one's special expertise. Postdoctoral experience is desirable and demonstrated promise for teaching and for obtaining extramural support are required. Send resume, transcripts, three letters of reference and statement of research plans to: **Dr. R. H. Delaney, Department of Plant Science, College of Agriculture, The University of Wyoming, Laramie, WY 82071. Phone (307) 766-3238.** Closes February 1 or when suitable applicant is selected. The University of Wyoming with ca. 10,000 students and Laramie with a population of ca. 24,000 are located between an east and west scenic range of the Rocky Mountains and border the mid-Great Plains. There is a multitude of outdoor recreational opportunities.

GEO-CENTERS, Inc., a high technology, growth-oriented research and development company, has an immediate opening for an experienced **Chemist/Toxicologist** in our **Washington, D.C.** office.

CHEMIST/TOXICOLOGIST

This position requires a M.S. degree in Chemistry, Biochemistry, or Toxicology, with 3-5 years of relevant experience (or equivalent) in the development of novel detection schemes for drugs and drug metabolites, and analytical studies of toxicological characteristics. Specific experience with Finnegan MS instrumentation and basic immunology equipment will be beneficial.

GEO-CENTERS, Inc., is an "Inc. 500" company offering competitive salaries and an excellent benefits package. If you qualify for the preceding position, please send your resume, including salary history, in confidence to: **GEO-CENTERS, Inc., 4710 Auth Place, Suite 485, Suitland, MD 20746, attn: Deborah Hall, code 2022.** GEO-CENTERS, Inc., is an equal opportunity/affirmative action employer.



GEO-CENTERS, INC.

At Sandia Labs, the Rewards are as Great As the Challenge

Sandia National Laboratories offers careers where the rewards equal the challenge. As one of the country's largest research and engineering facilities, Sandia is an innovative force in the fields of national security R&D and energy. Sandia's benefit package includes paid health care, life insurance, retirement and 24 days vacation.

NUCLEAR REACTOR SAFETY ANALYSIS

The Reactor Systems Safety Department at Sandia National Laboratories has immediate openings for well-qualified individuals wishing to work in nuclear reactor safety analysis. Numerous programs support both the Nuclear Regulatory Commission and the Department of Energy. Both existing reactors and advanced reactor concepts are being studied. These programs involve methodology and computer code development, as well as analysis of selected nuclear reactor facilities. Openings are available in the following areas:

- Systems Analysis, • Seismic Structural Analysis, • Reactor Thermal-Hydraulics, • Containment Thermal-Hydraulics, • Fission Product Transport, • Health and Economic Consequence Analysis, • Risk Assessment, • Plant Life Extension

Positions are currently available for both recent graduates and experienced analysts. May 1987 graduates should contact campus recruiters, or if necessary, send resumes to the address shown below. Applicants must have an advanced degree in nuclear, mechanical, electrical, chemical, or civil engineering or a related science. All applicants must have excellent academic records, and experienced applicants must have demonstrated excellence in their field.

Sandia National Laboratories, a prime contractor to the United States Department of Energy, is an equal opportunity employer and is located in Albuquerque, New Mexico.

If you're interested in these outstanding opportunities, please send your resume including academic records to: **John Wheeler, Staff Recruiting and Employment Division, 3531-R7, Sandia National Laboratories, Albuquerque, NM 87185.**

An Equal Opportunity Employer
U.S. Citizenship Required



Sandia National Laboratories

The world expects excellence from Merck. Link your future with ours!

Our Research Laboratories in Rahway, NJ, approximately 20 miles south of New York City, has attractive opportunities available for qualified individuals.

Group Leader—To head a team effort in applying molecular biological approaches to the study of signal transduction. This will involve the cloning of genes for pharmacologically important receptors utilizing molecular genetics to explore structure-function relationships of receptors, G-proteins and enzymes involved in 2nd messenger generation. Candidates must have a PhD in Molecular Biology and at least 2 years of postdoctoral experience.

Senior Research Immunologist—To join a multidisciplinary group that is investigating the molecular mechanisms of inflammation. The successful candidate will have a PhD or equivalent in Immunology, Biochemistry, or Pharmacology and 2-3 years of postdoctoral experience which should include expertise in in vivo models of inflammation. Primary responsibility will be for the design and development of such models. A strong background in biochemistry and experience with anaphylatoxins is desirable.

Our salaries, benefits and growth potential are excellent. To be considered for one of these positions, qualified candidates are invited to submit their curriculum vitae, the names of three references and salary requirements in confidence to **Ms. Alaina L. Love, Merck Sharp & Dohme Research Laboratories, P.O. Box 2000, R80M-TL1, Rahway, New Jersey 07065.**

AN EQUAL OPPORTUNITY EMPLOYER



Merck & Co., Inc.

MONSANTO COMPANY ANIMAL SCIENCES DIVISION — RESEARCH

Innovative approaches to biotechnological systems are being developed within our Research laboratories. Openings exist for Ph.D. level scientists with training/experience in the following fields:

- **Biochemistry** — Development and validation of methods for protein analysis in bulk and formulated materials. Development and application of protein purification techniques. Experience with contemporary protein separations methods is required. Also, extensive knowledge of HPLC method development and maintenance is necessary for certain positions.
- **Pharmaceutical Chemistry/Physical Pharmacy** — Characterize the physical/chemical properties of dose formulations, providing a definition of the parameters required for sustained release. Candidates with biochemical experience and a working knowledge of protein chemistry are preferred. A functional knowledge of surface active agents and interfacial chemistry is strongly desired.
- **Analytical Biochemistry** — Provide protein characterization and physicochemical methods used to define the chemistry and physical properties of new or existing product candidates for animal nutrition and health products.

Please forward your resume and letters of reference in confidence to: **John R. Amato; MONSANTO COMPANY; BB2A; 700 Chesterfield Village Parkway; Chesterfield, MO 63198.** An Equal Opportunity Employer M/F/H/V.

Monsanto

POSITIONS OPEN

LABORATORY ANIMAL VETERINARIAN

This position reports to the director of the Animal Institute. You will provide professional service to assist in maintaining an accreditable program of animal care and use and for compliance with the PHS Policy and be specifically responsible for animal health and quality.

Qualifications required are successful completion of a postdoctoral training program in Laboratory Animal Medicine or demonstrable equivalent experience, an ability to manage personnel and animal faculty operations, a current license to practice in the United States. Appointment to an academic department of the college, if desired, is dependent on your qualifications as is salary. A liberal benefits package is provided.

If you can contribute professional ability to the success of a major biomedical research program in a medical school environment, provide curriculum vitae and salary history/expectation to: **Sheila Cooper, Senior Employment Specialist, ALBERT EINSTEIN COLLEGE OF MEDICINE, 1300 Morris Park Avenue, Bronx, NY 10461. An Equal Opportunity Employer.**

MAIZE GENETICIST—Ohio State University (OSU) invites applications for an **assistant professor**, tenure-track position involving 80 percent research and 20 percent teaching in the Department of Agronomy. Individual will develop a program in genetics and germplasm improvement of maize. Excellent opportunity for collaboration with molecular geneticist and maize virus research team. For more information, contact: **Dr. A. L. BARTA, Search Committee Chair, Department of Agronomy, OARDC/OSU, Wooster, OH 44691. Equal Opportunity/Affirmative Action Employer.**

MICROBIAL GENETICIST

Applications are invited from microbial geneticists to fill a tenure-track position at the rank of **assistant professor**. Candidates must have appropriate postdoctoral research experience with a sound background in microbiology. The appointee will be expected to develop a competitive and independent research program in microbial genetics focusing on prokaryotic, unicellular eukaryotic, or viral systems. The successful candidate will participate in the undergraduate and the graduate instruction in microbiology. Competitive salary, set-up funds, and attractive facilities are available to accelerate career development. Excellent opportunities exist for interaction with faculty conducting research in microbiology and molecular and cell biology within the school of biological sciences, as well as in other units of the university. Submit curriculum vitae with description of research program and names and telephone numbers of three references by 7 February 1987 to: **The Chairman, Microbial Geneticist Search Committee, School of Biological Sciences, 101 T. H. Morgan Building, The University of Kentucky, Lexington, KY 40506-0225. An Equal Opportunity/Affirmative Action Employer.**

MICROBIOLOGIST—The U.S. Environmental Protection Agency, Health Effects Research Laboratory, Microbiology Branch, Cincinnati, OH, is recruiting a microbiologist (bacteriologist). This full-time, civil service position has a starting salary of \$38,727. Individual will provide leadership for a small research group working on health problems related to water environments. While a Ph.D. degree, plus experience, is desirable, minimum qualifications include a B.S., plus 3 years professional experience. Demonstrated publication record in the fields of bacteriology and public health, and experience using experimental animals is highly desirable. U.S. citizenship is required. An application packet may be obtained by contacting: **Vicki Horsley, Personnel Management Division, U.S. Environmental Protection Agency, 26 West St. Clair Street, Cincinnati, OH 45268**, prior to 31 December 1986. Telephone: 513-569-7804. *An Equal Opportunity/Affirmative Action Employer.*

MOLECULAR NEUROBIOLOGY

A postdoctoral position is available immediately to study structure and function of neuronal ion channels by cDNA expression and mutant selection in yeast. Strong background in molecular biology preferred. Please send a letter, curriculum vitae, and names of three references to: **Dr. Gary Yellen, Howard Hughes Medical Institute, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205.**

POSITIONS OPEN

MOLECULAR BIOLOGY RESEARCH TECHNICIANS

Pioneer Hi-Bred International, Inc., seeks two research technicians to take part in ongoing research in the areas of gene regulation and genetic transformation in corn. Duties will include isolation and analysis of RNA and DNA, manipulation of microbial and plant tissue cultures, molecular cloning, and limited field and greenhouse work. Applicants should have a M.S. or B.S. with appropriate experience, with a major in chemistry, biology, or a related field. Molecular biology experience is preferred. Submit résumé, transcripts, and three references to: **Dr. Arthur Weissinger, Pioneer Hi-Bred International, Inc., Biotechnology Research Department, P.O. Box 38, Johnston, IA 50131. Equal Opportunity/Affirmative Action Employer.**

MOLECULAR IMMUNOLOGIST

Tenure-track appointment at the level of assistant professor to begin in 1987 to 1988. The Department of Molecular Biology and Biochemistry at the University of California, Irvine located in Irvine, CA, is seeking qualified candidates in molecular immunology. Research interests can be focused in areas of molecular mechanisms of recognition or action of mediators. Applicants will be required to teach in areas of immunology and molecular biology. Please submit curriculum vitae, bibliography, representative publications, a description of current research, and three letters of reference to:

**Immunology Search Committee
Department of Molecular Biology & Biochemistry
University of California, Irvine
Irvine, CA 92717**

The deadline for applications is 15 April 1987. *The University of California, Irvine is an Affirmative Action/Equal Opportunity Employer.*

MOLECULAR POPULATION BIOLOGIST

Assistant professor, tenure-track position to begin August 1987. We seek an evolutionary biologist using molecular techniques to address population level questions. The successful candidate will develop graduate and undergraduate courses in their areas of expertise and contribute to introductory biology. Applicants must establish a vigorous research and graduate program. Ph.D. required; postdoctoral experience desirable. Send curriculum vitae, statement of teaching and research interests, transcripts, selected reprints and three letters of reference by 13 February 1987 to: **Dr. Margaret Gould Burke, EPSCoR Search Committee, Department of Biology, University of North Dakota, Grand Forks, ND 58202-8238. UND is an Affirmative Action/Equal Opportunity Employer.**

NEUROPSYCHOLOGIST FACULTY POSITION

The Division of Medical Psychology, Department of Psychiatry, of Duke University of Medical Center is recruiting a neuropsychologist with both clinical and research interests in Alzheimer's disease and dementia. This person needs to be a trained clinical neuropsychologist and preferably a diplomate in clinical neuropsychology from the American Board of Professional Psychology. The person also needs to have an active research program in an aspect of brain-behavior relationships pertinent to dementia that serves to guide his/her clinical assessment and/or rehabilitation activities. This person will be expected to engage in neuropsychological clinical and research activities and to collaborate with clinicians and researchers from other biomedical disciplines in the study and care of patients seen in the Alzheimer's Center. Furthermore, there are opportunities for collaboration with the faculty and programs of the center for the Study of Aging and Human Development, the Departments of Psychiatry and Radiology, and an emerging program in Neurosciences.

Rank and salary are commensurate with qualifications. Applicants should send a letter outlining their clinical and research interest, curriculum vitae, and three letters of reference to: **Robert J. Thompson, Jr., Ph.D., Professor and Head, Division of Medical Psychology, P.O. Box 3362, Duke University Medical Center, Durham, NC 27710. Duke University is an Equal Opportunity Employer.**

POSITIONS OPEN

NEUROSCIENCE-NEUROANATOMY HARVARD MEDICAL SCHOOL DEPARTMENT OF NEUROLOGY—BETH ISRAEL HOSPITAL

Advanced postdoctoral position with possibility for subsequent promotion to faculty rank. Emphasis on neuroanatomy. Address inquiries and applications (with curriculum vitae) in writing to: **M. Mesulam, M.D., Department of Neurology, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215.**

SENIOR OCEANOGRAPHER—The Johns Hopkins University Applied Physics Laboratory—APL is seeking a senior-level individual with a Ph.D. in oceanography, meteorology or fluid dynamics and preferably with experience in problems dealing with ocean dynamics (that is, currents, eddies) and ocean modeling. The successful applicant will develop expertise in the area of ocean modeling associated with predicting dynamics of meso- and large-scale flow using existing satellite radar altimeter data, as well as other future satellite data. This individual will collaborate with other APL scientists and **Professor Allan Robinson** of Harvard University in testing with data an existing model and working towards applications and improvements. Applications should be addressed to: **Mr. Ned Aull, Department LER-504, The Johns Hopkins University, APPLIED PHYSICS LABORATORY, Johns Hopkins Road, Laurel, MD 20707. An Equal Opportunity Employer, M/F.**

PHYSICAL PROTEIN BIOCHEMIST ASSISTANT PROFESSOR

IN DEPARTMENT OF MOLECULAR BIOLOGY AND BIOCHEMISTRY UNIVERSITY OF CALIFORNIA, IRVINE

The department invites applications for a tenure-track position from investigators with research interests in the physical chemistry of proteins, including engineering of protein domains, proteins which interact with nucleic acids, structure/function relationships, including modeling of folding pathways, posttranslational modification of proteins for secretion, or membrane trafficking. Applications accompanied by curriculum vitae, a statement of research interests, and the names of three referees, should be sent to: **Dr. Barbara K. Burgess, Chairman, Search Committee, Department of Molecular Biology and Biochemistry, University of California, Irvine, CA 92717. The University of California, Irvine is an Equal Opportunity/Affirmative Action Employer.**

POLICY ANALYST

Lawrence Berkeley Laboratory (LBL) is seeking an individual to lead an effort to establish a research group dealing with environmental policy issues. The research group will consist of LBL professionals working in close collaboration with University of California (UC) and Stanford faculty and research staff, researchers from Lawrence Livermore National Laboratory (LLNL), and leading researchers from other institutions. Initially, the individual will organize and coordinate work on a monograph, coauthored by researchers from UC, Stanford, LBL, and LLNL, assessing environmental policy research issues. The individual will also be expected to establish contacts with appropriate agencies leading to the support for a long-term effort on different aspects of environmental policy research. The individual selected will be expected to take considerable initiative both carrying out the initial work, establishing a collaboration to write a high-quality monograph on environmental policy research, and in establishing funding for an ongoing activity. Requires an advanced degree (Ph.D. strongly preferred) in environmental science, policy research, or physical science; substantial experience performing and/or leading research in areas related to environmental policy; demonstrated leadership, scientific, and managerial talent; experience and talent in interacting with high-level persons in government and private firms; and excellent organizational skills.

Send résumés to: **Employment Office, 90-1042, Lawrence Berkeley Laboratory, 1 Cyclotron Road, Berkeley, CA 94702.** Please refer to job number B/3948. *An Equal Opportunity Employer, M/F/H.*

**LAWRENCE
BERKELEY
LABORATORY**

Scientists

Genzyme Corporation, an international biotechnology company, is seeking skilled scientists for several senior and junior level positions in its research and development group.

Protein Modification—To carry out chemical modifications of therapeutic proteins. A Ph.D. in organic chemistry or biochemistry is required. Experience in peptide synthesis, protein characterization, hplc peptide mapping and/or peptide sequencing desirable.

Protein Purification—To purify enzymes involved in glycoprotein biosynthesis. A Ph.D. in biochemistry is required. Experience in the purification and characterization of membrane-bound proteins desirable.

Organic Synthesis—To assist in the enzymatic synthesis of pharmaceutical products. A M.S./B.S. degree in organic chemistry and 1-3 years practical experience in organic synthesis required.

Qualified applicants may send their resume in confidence to **Mrs. Carole Randall, Genzyme Corporation, 75 Kneeland St., Boston, MA 02111.**



Biological Data Systems

Merck Sharp & Dohme Research Laboratories, a worldwide leader in pharmaceutical research, has positions available in its Biological Data group within the department of Information Resources. These positions provide opportunities at both the Manager and Data Coordinator level.

The individuals will have a chance to join innovative groups currently developing a worldwide integrated biological and chemical on-line information network. Opportunities are unlimited for the selected candidates.

The candidates must have an excellent academic record, at least a B.S./M.S. degree in biology, biochemistry, or a biomedical science as well as related computer science background. Excellent managerial and interpersonal skills are required as staff and end-user interaction are major in development of the information network.

Merck Sharp & Dohme Research Laboratories are located in Rahway, New Jersey approximately 20 miles south of New York City. Our salaries, benefits, and growth potential are excellent.

Interested candidates should submit their curriculum vitae and salary requirements to: **Susan R. Jenkins, R80M-TL1, Merck Sharp & Dohme Research Laboratories, P.O. Box 2000, Rahway, New Jersey 07065.** An Equal Opportunity Employer M/F



Merck & Co., Inc.

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

NATIONAL INSTITUTES OF HEALTH

POSTDOCTORAL FELLOWSHIP POSITION

A three year postdoctoral fellowship is available as of Spring/Fall of 1987 for a U.S. citizen or permanent resident to join ongoing research on **GENE REGULATION IN THE DEVELOPMENT OF THE IMMUNE SYSTEM**. Applicants should have experience in molecular biology, and interest in eukaryotic gene regulation and immunology. The starting salary for recent Ph.D. graduates is \$20,000 and increases with added experience. Applications with full CV and three references should be addressed to:

Dr. Keiko Ozato
Laboratory of Developmental and Molecular Immunity
Building 6, Room 1A03
National Institute of Child Health and Human Development
National Institutes of Health
Bethesda, Maryland 20892

An Equal Opportunity Employer

SCIENTIFIC RESEARCH



University Resident Research Program

The Air Force Office of Scientific Research seeks faculty members with unique scientific expertise to carry out challenging research in Air Force laboratories. One Year appointments are available at research organizations located in Arizona, California, Colorado, Florida, Massachusetts, New Mexico, New York, Ohio, Texas and Washington, D.C. Appointment starting date and salary are negotiable.

These areas are of particular interest in Air Force research.

- ★ Electronic and Materials Sciences
- ★ Mathematical and Information Sciences
- ★ Physical and Geophysical Sciences
- ★ Aerospace Sciences
- ★ Chemical and Atmospheric Sciences
- ★ Life Sciences

Major Richard W. Kopka
AFOSR/XOT
Bolling Air Force Base, Washington, D.C. 20332-6448
Phone (202) 767-4971

To be eligible for participation, individuals must be U.S. Citizens currently serving as full time faculty members of U.S. institutions of higher education; have an earned PhD in a scientific discipline or engineering; and have a publication record in their proposed area of research. All qualified applicants will receive consideration without regard to age, color, race, religion, sex or national origin. Successful applicants will require letters of endorsement from the university dean and department chairperson.

Interested individuals are requested to send a resume, list of publications, and one page summary of proposed research to:

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

Air Force Systems Command
Equal Opportunity Employer

POSITIONS OPEN

PLANT BIOLOGY PLANT SCIENCE INSTITUTE DEPARTMENT OF BIOLOGY UNIVERSITY OF PENNSYLVANIA

The University of Pennsylvania has recently expanded its commitment to the study of plant biology via the creation of the Plant Science Institute. The Department of Biology is requesting applications for a tenure-track position affiliated with the institute. Research and teaching interests should include physiology, biochemistry, or genetics, although the area of specialization is less important than evidence of overall excellence. Applicants should submit by 15 January 1987 a curriculum vitae, recent reprints, a statement of professional goals, and research interests and have three letters of recommendation sent to:

Dr. Anthony R. Cashmore
Director, Plant Science Institute
Department of Biology
University of Pennsylvania
Philadelphia, PA 19104-6018

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

POPULATION BIOLOGY. Position at postdoctoral or junior faculty level for full-time quantitative theoretical, experimental, or field research in ecology, demography, epidemiology, evolution, population genetics, public health, applied stochastic processes, or other basic or health-related aspects of populations. Demonstrated ability in mathematics or statistics required. Current research of the Laboratory of Population concerns community food webs, age-structured populations, malaria, competing risks, and malathion resistance in flour beetles. Position starts March or September 1987 and is renewable. Send curriculum vitae, brief description of research interests and major accomplishments, and names, addresses, and telephone numbers of four references to: **Joel E. Cohen, Rockefeller University, 1230 York Avenue, Box 20, New York, NY 10021-6399.** *An Equal Opportunity Employer.*

The Department of Medical Oncology of the City of Hope National Medical Center has an immediate opening for a senior **POSTDOCTORAL FELLOW** or **ASSISTANT PROFESSOR** level individual to pursue research on the molecular biology of anticancer drug resistance. Competitive salary and research financial support are available. Interested individuals with a Ph.D. degree in molecular biology or related fields and at least 1 to 2 years of postdoctoral experience should send a letter of inquiry and curriculum vitae to: **Dr. James Doroshow, Director, Department of Medical Oncology, 1500 East Duarte Road, Duarte, CA 91010.**

THE AUSTRALIAN NATIONAL UNIVERSITY. Applications are invited for suitably qualified men and women for appointment to the position of **POSTDOCTORAL FELLOW/RESEARCH FELLOW, MEDICAL MOLECULAR BIOLOGY UNIT, THE JOHN CURTIN SCHOOL OF MEDICAL RESEARCH.** The unit is seeking a Ph.D. graduate to participate in a research program concerning the molecular biology of interleukin-3 and other haemopoietic growth factors. The current research of the unit is using recombinant DNA and gene transfer methods to help understand the molecular basis of cell growth and differentiation and to study the genetic changes leading to proliferative blood disorders such as leukemia. There is a continuing emphasis on gene structure, expression, and regulation. Applicants should have a Ph.D. degree. Experience in recombinant DNA techniques is essential. Enquiries to: **Dr. I. G. Young, MMBU 6162 49 2584.** Closing date: 9 January 1987. Reference: JC 23.10.1. Salary will be in accordance with qualifications and experience within the range: postdoctoral fellow/grade 1 (at a fixed point) A\$24,013 to A\$27,507 per annum; research fellow A\$27,859 to A\$36,600 per annum. Appointment will be: research fellow normally up to 3 years, with the possibility of extension to maximum of 5 years; postdoctoral fellow normally 2 years, with the possibility of extension to maximum of 3 years. 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

POSTDOCTORAL FELLOW—Postdoctoral fellowship available in a research program studying extracellular matrices and their effects on epithelial cell differentiation. Recent Ph.D. in biochemistry, cellular, or molecular biology required. One-year term appointment renewable up to 3 years. Stipend \$1900 to \$2170 per month. Send curriculum vitae and names of references to: **Dr. Gordon Parry. Please refer to job number B/3954. Attention: Jaquie Schilling, Lawrence Berkeley Laboratory, Employment Office, M.S. 1-213, Number 1 Cyclotron Road, Berkeley, CA 94720.** *An Affirmative Action/Equal Opportunity Employer, M/F/H.*

POSTDOCTORAL POSITION. Available immediately for an enthusiastic individual who is interested in studying the effect of neuroendocrine hormones on the immune response to viral and bacterial infections. Ph.D. in immunology, microbiology, molecular biology, or related field is required. Background in lymphokine research and recombinant DNA techniques preferred. Send curriculum vitae and names and telephone numbers of three references to: **Dr. S. Serrate, Uniformed Services University of the Health Sciences, c/o Civilian Personnel, 4301 Jones Bridge Road, Bethesda, MD 20814.**

POSTDOCTORAL POSITION—Available in January to characterize the properties of polymerized bilayer membranes by fluorescence spectroscopy, FRAP, microscopy, and differential scanning calorimetry. Applicants should send curriculum vitae, publications list, and references before 1 January 1987 to: **Professor David F. O'Brien, Department of Chemistry, University of Arizona, Tucson, AZ 85721.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately for investigations on the mechanism of regulation of actomyosin ATPase of striated and smooth muscle and mechanisms in cell motility. Send curriculum vitae and references to:

Dr. E. W. Taylor
Department of Molecular Genetics and Cell Biology
University of Chicago
920 East 58 Street
Chicago, IL 60637

POSTDOCTORAL POSITIONS

Available immediately to join a research project involving in vivo and in vitro experiments on the regulation and growth of limbs in mouse embryos. Ph.D. required, with experience in cell and tissue culture, molecular biology, and developmental biology desirable. Submit curriculum vitae, statement of research interests, and names of three individuals willing to write letters of recommendation to:

Dr. Susan Bryant
Developmental Biology Center
University of California, Irvine
Irvine, CA 92717

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

POSTDOCTORAL POSITION available February 1987 to produce and characterize monoclonal antibodies to enteric viruses of animals and use these for viral epitope mapping and strain differentiation. Experience in virology and with monoclonals is required. Send curriculum vitae and three references to: **Dr. Linda Saif, Food Animal Health Research Program, Ohio State University, Ohio Agricultural Research and Development Center, Wooster, OH 44691.**

POSTGRADUATE RESEARCH POSITION—Immediate opening for Ph.D. in biochemistry or molecular biology to study the structure, biosynthesis, and regulation of vitamin K-dependent bone proteins. Projects include transcriptional regulation by the steroidal hormone 1,25-dihydroxyvitamin D₃, the vitamin K-dependent biosynthesis of γ -carboxyglutamic acid-containing proteins, and structure-function tests of the role of γ -carboxyglutamic acid-containing proteins in mineralization. Salary commensurate with qualifications and experience. Send curriculum vitae and names of at least two references by 9 January 1987. To: **Dr. Paul A. Price, Department of Biology, B-022, University of California, San Diego, La Jolla, CA 92093.** *An Equal Opportunity/Affirmative Action Employer.*

Immunologists

Molecular Genetics, Inc., a leading bio-technology firm, is expanding in its Immunology and Clinical Research group. We are currently seeking research scientists who are interested in new career opportunities. We seek candidates who have research interests in the areas of cell mediated immunity, macrophage activation, interleukin and interferon regulation, and T-lymphocyte functions. Hybridoma technology will play a vital role in our research efforts.

Positions are available at the following levels:

Senior Research Associate: minimum qualifications are 5 years of relevant post-doctoral experience. The selected individual will have extensive experience in initiating, actively participating and managing research related to cellular immunology.

Research Associate: minimum requirements are Ph.D. with relevant research experience in the areas of interest. The successful candidate will be capable of independent investigation with minimal supervision.

Senior Research Technician: minimum requirements are M.S. with 2 years relevant research experience beyond the degree, or B.S. with 4 years relevant experience beyond the degree. The individual chosen for this position will perform various immunological and biochemical assays as well as tissue culture, under the direction of the senior researchers.

Molecular Genetics offers competitive salaries, excellent benefits and a stimulating multidisciplinary research environment.

To apply for one of these positions, reference the position of interest in the cover letter as follows: **Senior Research Associate S11; Research Associate S7; Senior Research Technician S5, and send curriculum vitae and list of three references to: Molecular Genetics, Inc., 10320 Bren Road East, Minnetonka, MN 55343, Att: Manager, Human Resources.** *Equal Opportunity/Affirmative Action Employer.*

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

NATIONAL INSTITUTES OF HEALTH

POSTDOCTORAL FELLOWSHIP IN MOLECULAR BIOLOGY OF DRUG METABOLIZING ENZYMES

A postdoctoral fellowship is available immediately for an American citizen or permanent resident to study genetics, regulation and expression of glucuronidating enzymes using biochemical and recombinant DNA techniques. Experience in recombinant DNA techniques desired. Salary is \$20,000 to \$23,000 per year depending on experience. Send curriculum vitae, three letters of reference, and any request for further information to:

Dr. Ida S. Owens
Laboratory of Developmental Pharmacology
Building 10, Room 6C-101
National Institutes of Health
Bethesda, Maryland 20892
(301) 496-1016

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RESEARCH SCIENTISTS

Neuroscience, Inc., a new biotechnology company located in Cambridge, MA., has research positions available in the following areas:

MOLECULAR BIOLOGIST

The ideal candidate will possess a Ph.D. and expertise in cDNA and gene cloning, DNA sequencing, oligonucleotide synthesis, site-directed mutagenesis and the expression of foreign genes in prokaryotic and eukaryotic systems.

MOLECULAR IMMUNOLOGY

The successful candidate will possess a Ph.D. and have extensive experience with state-of-the-art hybridoma technology.

PROTEIN CHEMISTRY

The ideal candidate will possess a Ph.D. and expertise in the purification and characterization of membrane-associated proteins, HPLC of proteins and peptides, protein microsequencing and amino acid analysis.

NEUROPHARMACOLOGY

The successful candidate will possess a Ph.D. and have extensive experience with chemical and functional assays of receptor binding.

Neuroscience, Inc., offers a stimulating research environment with competitive salaries and benefits. Qualified candidates should send a resume and three letters of reference to:

Neuroscience, Inc.
Executive Director of Research
Bldg. 700
One Kendall Square
Cambridge, MA 02139

NEUROSCIENCE, INC.
An equal opportunity employer.

FACULTY POSITIONS IN RADIOLOGICAL SCIENCES

The Department of Nuclear Engineering at MIT requests applications for two positions in the area of radiological sciences. The positions will be on a tenure track with a 3-year appointment as assistant or associate professor to be determined by the qualifications of the successful candidates. These successful candidates will be members of the Radiation Science and Technology program of the Nuclear Engineering Department and may also have adjunct appointments in the Whitaker College of Health Sciences, Technology and Management depending on their interests and qualifications. Candidates should hold a Ph.D. or Sc.D. in an engineering or physical sciences specialty and should have experience in radiation production, detection, dosimetry and/or application. Candidates for one of the positions should have a broad interest in the physics and engineering of radiation therapy including systems for radiation delivery, dosimetry, treatment planning and related computer applications. Candidates for the other position should be interested in a broad range of topics dealing with radiation biophysics including studies of radiation effects and the use of radiation modifying agents.

Independent of the area of research, the candidates should be capable of mounting an extensive research program and obtaining support. The program should interact with and expand other activities in the Nuclear Engineering Department involving nuclear reactions. The candidates should be capable of teaching a wide range of courses in the academic areas of radiation science and technology including radiation and radioisotope applications and experimental nuclear physics and should be able to assist in the radiation health physics curriculum. The teaching activities will form an integral part of the radiological sciences program and the successful candidates will have responsibilities for the supervision of student research including master's and doctoral research.

Candidates for both positions are strongly encouraged to include utilization of the MIT Research Reactor in the formulation of their proposed teaching and research activities. Both candidates should also be able to integrate their research and teaching with other aspects of the department's radiological sciences program such as biomedical imaging and diagnosis. Effective collaboration with other relevant groups in the Boston area is important.

Please submit curriculum vitae to: Professor Gordon L. Brownell, Massachusetts Institute of Technology, Whitaker College of Health Sciences, Technology and Management, Room E25-330B, Cambridge, Massachusetts 02139.

MIT is an Equal Opportunity/
Affirmative Action Employer

MIT

MOUNT SINAI SCHOOL OF MEDICINE

ELSTER CHAIR IN MOLECULAR BIOLOGY (CONNECTIVE TISSUE DISORDERS)

The Mount Sinai School of Medicine is seeking qualified candidates for the Dr. Amy and James Elster Professorship in Molecular Biology (Connective Tissue Disorders). This endowed chair has been established for basic investigation into the molecular biology and genetics of disorders of connective tissue. In addition to salary, funds will be provided annually for technical assistance and research.

The applicant should be an innovative researcher with expertise in the molecular biology/genetics of connective tissue and/or its genetic disorders. This person must be able to interact with faculty, staff and graduate students in various disciplines, thereby serving as a catalyst to increase research activity in this area.

The chair is a research position and the incumbent will be expected to develop a program that includes the supervision of graduate students and postdoctoral fellows. In addition, research funds will be provided for several years to augment the endowment. The incumbent also will be expected to seek outside funding to strengthen and expand the research program. The position will be housed in the newly established Brookdale Center for Molecular Biology at Mount Sinai, and will have close working relationships with other departments and divisions including medical genetics. Applicants should include a curriculum vitae and bibliography, statement of research interests and the names and addresses of four scientists who may be contacted for reference. Nominations also are requested. Send to:

R.J. Desnick, Ph.D., M.D.
Division of Medical Genetics
Mount Sinai School of Medicine
Fifth Avenue at 100th Street
New York, New York 10029

Mount Sinai School of Medicine is an Equal Opportunity/Affirmative Action Employer



POSITIONS OPEN

UNIVERSITY OF UTAH SCHOOL OF MEDICINE Department of Radiology POSTDOCTORAL RESEARCH ASSOCIATE

Position is available immediately for 2 to 3 years to study the molecular and cellular mechanisms of ionizing radiation in heterogeneous murine carcinoma cells. Research involves flow cytometric analysis, DNA damage induction and repair by alkaline and neutral filter elution and sucrose gradient sedimentation, analysis of chromatin structure and function, thiol metabolism, and poly(ADP-ribosylation). Stipend negotiable. U.S. citizenship or permanent visa required. Applications along with curriculum vitae and three references should be sent to: **Dr. Lyle A. Dethlefsen, Department of Radiology, University of Utah Health Sciences Center, Salt Lake City, UT 84132, telephone: 801-581-5271. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH in (i) antisense oligodeoxynucleotide inhibition of oncogene expression in transformed cells, and (ii) cloning, sequencing, protein structure, and RNA interactions of prokaryotic initiation factor 3 genes. Positions available for 1 year, with possibility of renewal for second year; salary commensurate with experience. Fully qualified applicants may send curriculum vitae and three letters of reference by 26 December 1986 to: **Dr. Eric Wickstrom, Department of Chemistry, University of South Florida (USF), Tampa, FL 33620. USF is an Affirmative Action/Equal Opportunity Employer.**

The California Space Institute of Scripps Institution of Oceanography (SIO) invites applications for **postgraduate (postdoctoral) researchers** in the area of developing programs in telerobotics and image processing applicable to space operations and oceanography. The applicants must have relevant Ph.D.'s or equivalent degrees. Experience in image processing and/or robotics. Salary range is \$24,972 to \$27,360, commensurate with experience. Applicants should submit résumé including names and addresses of at least three references to: **Dr. James Arnold, California Space Institute, A-021, La Jolla, CA 92093, by 30 December 1986. The University of California at San Diego is an Equal Opportunity/Affirmative Action Employer.**

PROTEIN CHEMIST

An opportunity is available for a biochemist with experience in protein structure studies. Candidate must have a doctoral degree in biochemistry and a minimum of 5 years of experience in the field of protein chemistry. Must be accomplished in the preparation of proteins and peptides by modern HPLC methods and the analysis of their composition and primary sequence. Must be experienced in the use of gas phase sequencer. Must be experienced in the use of computers to predict structure. Position is located in the Division of Medical Genetics, Department of Pediatrics, University of Southern California at Childrens Hospital of Los Angeles. Joint appointment in biochemistry is available. Excellent opportunities are available for collaboration and extension of interests to challenging cell biologic questions of protein translocation and membrane integration. Salary, academic rank, and tenure status are determined by experience and record of productivity. Send curriculum vitae, representative publications, statement of research interests, and names of three references to: **John A. Barranger, M.D., Ph.D., Head, Division of Human Genetics, Childrens Hospital of Los Angeles, 4650 Sunset Boulevard, Los Angeles, CA 90027. Childrens Hospital of Los Angeles and the University of Southern California are Affirmative Action Employers.**

RESEARCH ASSOCIATE

Position available after 1 January 1987 at **Duke University Medical Center, Durham, NC**, to study molecular biology of hormone-activated pathways and hormone-induced gene expression. Ph.D. or M.D. required, training in biochemistry or molecular biology would be appropriate. The position carries with it an appointment as associate of the Howard Hughes Medical Institute, with a competitive salary and benefits. Interested applicants should send curriculum vitae and names of three references to: **Dr. Perry J. Blackshear, Duke University Medical Center, Box 3897, Durham, NC 27710.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately to study role of brain beta-endorphin in nicotine dependency or in central cardiovascular regulation. Recent Ph.D. in pharmacology or related science needed, with experience in opioid immunoassay and preference for those experienced in biochemical, behavioral, or cardiovascular pharmacology of opioid peptides or nicotine. Send curriculum vitae and three references to **Dr. A. J. Ingenito, Department of Pharmacology, School of Medicine, East Carolina University, Greenville, NC 27834.**

POSTDOCTORAL RESEARCH at The National Center For Toxicological Research. NCTR's research mission is to study the biological effects of potentially toxic chemicals. Doctoral degree within last 3 years preferred. Stipend is \$23,000 to \$30,000, depending on research area and experience. Contact: **ORAU Postgraduate Program at NCTR, University Programs Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831; telephone: 615-576-3190. Equal Opportunity Program open to U.S. citizens or PRA.**

PRE- AND POSTDOCTORAL VIROLOGY POSITIONS

The Department of Microbiology and Immunology, University of California, Los Angeles (UCLA), School of Medicine, invites applications for training positions in virology. Research programs include the cellular and molecular basis of latency and pathogenesis of herpes simplex viruses (**Jack G. Stevens**), molecular biology of influenza viruses (**Debi P. Nayak**), transformation by papilloma viruses (**Felix O. Wettstein**), persistence of lymphocytic choriomeningitis viruses (**Rafi Ahmed**), molecular biology of picornaviruses (**Asim Dasgupta**), and molecular basis for transcriptional activation of herpesvirus genes (**Lawrence T. Feldman**). Stipends available. For predoctoral training leading to the Ph.D. degree, contact **Dr. Dexter Howard**; and for postdoctoral positions, contact **Dr. Debi Nayak, Department of Microbiology and Immunology, UCLA School of Medicine, Los Angeles, CA 90024. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE. Forty hours per week, 8 a.m. to 5 p.m., Monday through Friday. Salary: \$24,220 per year. Will do research on the synthesis and chemistry of antitumor chemical—Maytansinoid—and do the total synthesis and enzymatic studies of fluorinated arachidonic acid. Will explore the physicochemical methods that may be used for cure of cancers, gastric ulcers, asthma, heart disease, and some complications of diabetes. Will apply general organic synthesis techniques, chemical resolution, and new methodologies. Requirements: 8 years of college—Ph.D. in organic chemistry. Must use these instruments: NMR (nuclear magnetic resonance, 500, 400, 270, and 200 MHz; proton and fluorine), HPLC (high-pressure liquid chromatography), GC (gas chromatography), column chromatography, UV (ultraviolet), IR (infrared), and TLC (thin-layer chromatography) in order to synthesize and identify individual chemicals and enzymatic conversion products. Must have taken two courses in special topic in organic chemistry which cover the areas of spectroscopy and enzyme models. Send your résumés to: **ILLINOIS JOB SERVICE, Alien Certification Unit, Room 3-S (Third Floor South), 401 South State Street, Chicago, IL 60605, Attention: Mrs. S. Chalem, Reference number 6380-S. An employer paid ad.**

RESEARCH ASSOCIATE to design, manage, and participate in all phases of a research project on the determination of the DNA and amino acid sequence of the gonadotropin receptors by gene cloning. Ph.D. in biochemistry or in a related area with publications in refereed national or international journals, with three or more years of experience in protein purification (gel permeation and affinity column chromatography, and reverse phase, as well as molecular sieve and ion exchange HPLC) and polypeptide microsequencing on gas phase sequencer, and with working knowledge of gene cloning, or M.S. and experience from which comparable knowledge can be acquired. Minimum of 40 hours, 5 days a week at the Biochemistry Building. Salary range: \$21,516 to \$33,044 per year. Send résumé and three letters of reference to: **Dr. Tae H. Ji, Department of Microbiology/Biochemistry, University of Wyoming, Laramie, WY 82071.**

POSITIONS OPEN

RESEARCH SCIENTISTS

- 1) **Cellular Immunology**—Human lymphokine biology, immunoregulation, T-cell function.
- 2) **Molecular Biology**—Recombinant DNA technology, gene cloning, DNA sequencing.

Imreg, Inc., is a leader in the development of unique immunoregulators and diagnostics for human and veterinary applications. We are looking for scientists who desire intellectually challenging positions to work at the advancing edge of the developing areas of human lymphokines and recombinant DNA technologies as applied to problems in immunoregulation. Applicants should have a Ph.D. in one of the specific disciplines. Relevant postdoctoral experience is desirable.

Imreg, Inc., offers competitive salaries commensurate with training, experience, and demonstrated productivity, and an attractive fringe benefit package including a stock option plan.

Please send curriculum vitae in confidence to:

**Vice President of Administration and Finance
Imreg, Inc.
144 Elk Place, Suite 1400
New Orleans, LA 70112**

TECHNICAL/ADMINISTRATIVE ASSISTANT

The Environmental Research Center (ERC) of the University of Nevada, Las Vegas, is seeking a technical/administrative assistant with at least a B.S. degree in one of the physical sciences or engineering and academic training in chemistry, statistics, and computer science. Excellent communication and interpersonal skills are essential. Training in business administration and experience in tracking, coordinating, and projecting programs and program budgets is desirable.

The successful applicant will serve as an assistant to the director of the ERC with broad technical interdisciplinary and administrative responsibilities. Appointment will be made on a 12-month basis subject to performance and renewal of programs.

The University has excellent benefits, and the salary will be commensurate with training and experience. Interested candidates please write and send résumé and salary history to: **Dr. David N. McNelis, Director, Environmental Research Center, University of Nevada, Las Vegas, Las Vegas, NV 89154 by 31 December 1986. Affirmative Action/Equal Opportunity Employer.**

TUMOR IMMUNOLOGY: National Cancer Institute (NCI), National Institutes of Health (NIH), Public Health Service, is seeking applicants to join a research group involved in the generation and utilization of novel monoclonal antibodies directed against human tumor antigens. Group is also involved in the generation and utilization of recombinant immunoglobulins and anti-idiotypic monoclonals, and tumor-antigen characterization. Applicants should have a Ph.D. or M.D. or extensive experience with a strong background in one or more of the following: immunochemistry, glycoprotein chemistry, hybridoma technology, and cell-mediated immunity. Salary commensurate with experience. Send curriculum vitae, bibliography, and names of references to: **Dr. Jeffrey Scholm, NCI/NIH, Building 10, Room 8B07, 9000 Rockville Pike, Bethesda, MD 20892. U.S. citizenship and/or permanent residency required, depending upon type of appointment. An Equal Opportunity Employer.**

VIROLOGIST/IMMUNOLOGIST

Emory University seeks candidates for a joint appointment as an assistant professor in the School of Medicine as a core staff scientist with faculty rank at the Yerkes Regional Primate Research Center. The successful candidate will be responsible for the development of an active research program in primate virology/immunology, with emphasis on retroviruses and other immunosuppressive viruses.

Candidates should send a letter of application, curriculum vitae, and three professional references to: **Dr. Frederick A. King, Director, Yerkes Primate Center, and Chair, Search Committee for Virologist/Immunologist, Emory University, Atlanta, GA 30322.**

Deadline for receipt of applications is 26 December 1986.

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- PhD in Pharmacology or Biochemistry in antihypertensive techniques to evaluate novel diuretics, emphasis on the renin-angiotensin-aldosterone system. 2-4 years' experience. Radioimmunoassay and supervisory experience advantageous.
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- PhD in biochemistry pharmacology with demonstrable competence in the biochemistry of calcium translocation and the pharmacology of calcium channel blockers. One year appointment renewable by mutual consent. Presentation at national and international meetings and publication of findings will be encouraged.

NEUROCHEMICAL

- BS or MS in biology or biochemistry with experience in neurobiology to work on receptor binding techniques and catecholamine metabolism. HPLC familiarity highly desirable. Interdisciplinary approach to the discovery of novel psychotherapeutic entities. Suburban setting 25 miles south of Philadelphia. Competitive salary and comprehensive benefits. Principals only. Charles T. Brodigan, Associate Employment Manager,



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The Sandoz Research Institute currently has a career opportunity for a Ph.D. with postdoctoral training and 3-5 years of experience in the field of lipoprotein metabolism.

Our position is within an expanding area of interest in the development of new agents which alter lipoprotein synthesis or catabolism. The successful candidate will join multidisciplinary groups of lipid and lipoprotein research specialists and medicinal chemists who are directed towards the identification of new therapeutic approaches to the dyslipidemias.

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For prompt consideration, respond to Job #312 and forward your resume and salary requirements before December 31 in confidence to:



Director of Human Resources/403
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POSITIONS OPEN

VERTEBRATE ZOOLOGIST

Applications are invited from vertebrate zoologists to fill a tenure-track position at the rank of assistant professor. Candidates must have postdoctoral experience and a sound background in vertebrate zoology. The appointee will be expected to develop a competitive research program focusing on evolutionary aspects of animal behavior, functional morphology, or reproductive biology. The successful candidate will share alternately in teaching comparative anatomy and appropriate specialty courses, that is, two courses per year. Competitive salary, start-up funds, and facilities are available. Submit curriculum vitae with description of research program, representative reprints, and names, addresses and telephone numbers of at least three references by 7 February 1987 to: Vertebrate Zoology Search Committee, School of Biological Sciences, 101 T. H. Morgan Building, University of Kentucky, Lexington, KY 40506-0225. An Equal Opportunity/Affirmative Action Employer.

ZOOLOGIST: Small college in rural Maine offers permanent, full-time teaching position starting August 1987. We emphasize applied natural sciences (wildlife, fisheries, forestry, and ecology), and seek a colleague with a strong commitment to teaching. Course load includes general zoology, genetics, physiology. Ph.D. with interest in natural history/ecology preferred; demonstrated teaching ability essential. Salary \$16,000 to \$19,000. Send résumé, statement of teaching and research interests, and names of three references by 15 January 1987 to: A. J. Geffen, Center of Environmental Sciences, Unity College, Unity, ME 04988. An Equal Opportunity Employer.

PROGRAM

The American Health Assistance Foundation is accepting research grant applications for Coronary Heart Disease Research program up to \$25,000. Alzheimer's Disease Research program up to \$50,000. For further information, write or call: American Health Assistance Foundation, 15825 Shady Grove Road, Suite 140, Rockville, MD 20850. Telephone: 301-948-3244. Deadline 31 December 1986.

GRADUATE TRAINING

ASSISTANTSHIPS GRADUATE TRAINING PROGRAM IN NEUROSCIENCE

The Neuroscience Program at The Milton S. Hershey Medical Center of The Pennsylvania State University has assistantships available in September 1987. This interdepartmental program is designed to confer a Ph.D. degree with a major in neuroscience after 4 years of study. A master's degree program is also available. Participating faculty have established research programs in molecular biology of the nervous system, neurophysiology, neuroendocrinology, behavioral science, neuropharmacology, and cerebral blood flow and metabolism. Interested candidates are invited to apply to: Dr. Robert Page, Chairman, Neuroscience Program, The Milton S. Hershey Medical Center, The Pennsylvania State University, P.O. Box 850, Hershey, PA 17033. An Equal Opportunity/Affirmative Action Employer.

GRADUATE STUDY

GRADUATE STUDY IN ENVIRONMENTAL HEALTH AND PLANNING

Research and course work opportunities are offered in three analytical laboratories conducting extensive research in water quality and environmental microbiology, air pollution monitoring and health assessment, and elemental baseline chemistry leading to the M.A. and Ph.D. degrees in social ecology, an internationally recognized interdisciplinary program which includes scientists and specialists in public health, planning, and environmental law. For further information: Jan Martin, Program in Social Ecology, University of California, Irvine, CA 92717. An Equal Opportunity/Affirmative Action Employer.

CONFERENCES

ICN ANNUAL CONFERENCE ON VIROLOGY HIV AND OTHER HIGHLY PATHOGENIC VIRUSES 15-16 JANUARY 1987 NEWPORT MARRIOTT, NEWPORT BEACH, CA

This conference will review scientific and clinical aspects of several highly pathogenic viruses, with special emphasis on HIV. In addition to presentations by invited speakers, there will be two sessions of posters selected by the Organizing Committee from submitted abstracts. Following review, a selected number of these abstracts will be published as a monograph of the Conference Proceedings. Submitted abstracts should be 200 words in length and must arrive by 26 December 1986 to: Organizing Committee, ICN Annual Conference, ICN Plaza, 3300 Hyland Avenue, Costa Mesa, CA 92626.

Registration will be confirmed on a space-available basis. For program and registration information, contact:

Coordinator, ICN Annual Conference
ICN Plaza
3300 Hyland Avenue
Costa Mesa, CA 92626

The New York Academy of Sciences and State of New York Department of Health Conference On: LYME DISEASE AND RELATED DISORDERS 14 to 16 September, 1987 Marriott Marquis, New York City

Lyme disease and related disorders caused by *Borrelia burgdorferi* are of worldwide importance. This international symposium will bring together investigators who are actively working in basic and clinical research in all the aspects involved in these chronic zoonoses. A major goal of this symposium will be to draw information from other disease models which may have a bearing on or provide insights into the pathogenesis and distribution of these diseases. Major advances in basic, clinical, and ecological research, as well as public health oriented topics on control and treatment will be discussed.

There will be contributed poster sessions. The deadline for submission of abstracts is 15 February 1987. A 200-word summary of work to be presented should be sent to: Dr. Jorge L. Benach, State of New York Department of Health, Health Sciences Center, State University of New York (SUNY) at Stony Brook, Stony Brook, NY 11794.

Convener: Dr. David Axelrod, Commissioner State of New York Department of Health.

Chairs: Jorge L. Benach, Ph.D. and Edward M. Bosler, Ph.D., State of New York Department of Health and School of Medicine, SUNY, Stony Brook, NY.

For program and registration information: Conference Department, The New York Academy of Sciences, 2 East 63 Street, New York, NY 10021.

COURSES

MOLECULAR ENDOCRINOLOGY AND TECHNIQUES FOR HORMONE ACTION 22 to 27 February 1987

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

Co-directors: W. T. Schrader and B. W. O'Malley

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For further information, contact:

Bonnie Cuthbert
Department of Cell Biology
Baylor College of Medicine
Houston, TX 77030
713-799-6200

DEADLINE—30 January 1987

COURSES

29 January 1987: The Biotechnology Division of Fisher Scientific is sponsoring a Mind Broadening Adventure on "Some Do's, Don't's, and How To's in Cell Culture" to be held at the Amfac Hotel in Burlingame, CA. For further details, write to: S. Daniel Makover, Ph.D., Fisher Scientific, 711 Forbes Avenue, Pittsburgh, PA 15219, or telephone: 412-562-1702.

SYMPOSIUM

INTERNATIONAL SYMPOSIUM ON MEMBRANE FUSION 27 to 29 April 1987 STATE UNIVERSITY OF NEW YORK AT BUFFALO (SUNY) BUFFALO, NY

The conference will focus on molecular mechanisms of membrane fusion for model, as well as biological membranes. Posters related to the symposium are invited. For further information, contact: Symposium Organization Committee (Dr. S. Ohki), Department of Biophysical Sciences, SUNY at Buffalo, 224 Gary Hall, Buffalo, NY 14214.

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For application write: TSA, 41-025 Bell Boulevard, Bayside, NY 11361. Letters of intent to apply due by 15 January 1987.

NASA PLANETARY BIOLOGY SUMMER INTERNSHIPS. The Marine Biological Laboratory, Woods Hole, Massachusetts, invites applications from graduate students and seniors accepted in graduate programs for \$1800 awards to participate in research at NASA centers and collaborating institutions during the summer. Application deadline: 1 April 1987. For information and applications, contact: Michael Enzien, Planetary Biology Intern Program, Department of Biology, Boston University, 2 Cummings Street, Boston, MA 02215. An Equal Opportunity/Affirmative Action Institution.

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