mitochondria therein are just beginning to be assessed.

Another useful aspect of the book is that authors continually point out questions that remain to be answered. The questions show that we now have a reasonably good understanding of the biochemical details behind many of the "aberrant" aspects of plant mitochondria but a poor understanding of how most of those aspects are integrated into the overall respiratory process. This becomes especially apparent in the last five chapters, which focus less on mitochondria and more on the overall process of respiration. Again, in spite of the considerable progress made in the last 25 years, questions abound, and more often than not they center on regulation. The lack of understanding of the regulation of respiratory metabolism is itself related to the fact that in many instances the basic pathways of carbon flow during plant respiration are not known with certainty. For example, the widespread appearance of the enzyme pyrophosphate: fructose-6-phosphate 1-phosphotransferase in the cytoplasm of higher plants and the uncertainty about its role in glycolysis, vis à vis phosphofructokinase, is something that workers need to sort out. To the book's credit, most authors clearly demarcate what is known from what is not, but personal biases do enter into the text at several points. For example, the mechanism by which electrons branch onto the cyanide-resistant pathway, the nature of the cyanide-resistant oxidase itself, and the role of the pathway in metabolism are each brought up by several authors, who have differing opinions about them. However, this strikes me as less a drawback than a healthy sign for the field as a whole.

In any endeavor having the scope provided in this book, some things will be overlooked. The role of mitochondria in cytoplasmic male sterility in plants is given too little attention, and biogenesis, a topic of intense investigation in other mitochondria, is hardly dealt with by any author. The latter lack to some extent reflects the lack of work on biogenesis in plant mitochondria. These omissions are minor given the many other subjects that are carefully and completely reviewed.

This book will become required reading for workers in the field, but it should also be of interest to others, who might have the impression that all the important questions in the field of plant respiration have been answered.

JAMES N. SIEDOW

Department of Botany, Duke University,

Durham, North Carolina 27706

#### **Books Received**

Assessment of Risk from Low-Level Exposure to Radiation and Chemicals. A Critical Overview. Avril D. Woodhead *et al.*, Eds. Plenum, New York, 1985. Xii, 529 pp., illus. \$65. Basic Life Sciences, vol. 33. From a meeting, Upton, N.Y., May 1984.

The Atlas of Australian Birds. M. Blakers, S. J. J. F. Davies, and P. N. Reilly. Melbourne University Press, Melbourne, 1984 (U.S. distributor, International Specialized Book Services, Beaverton, Ore.). xlvi, 738 pp. \$60.

Atomic and Quantum Physics. An Introduction to the Fundamentals of Experiment and Theory. H. Haken and H. C. Wolf. Springer-Verlag, New York, 1984. xiv, 394 pp., illus. \$29. Translated from the German edition (Berlin, 1983) by W. D. Brewer.

The Attribution of Blame. Causality, Responsibil-ity, and Blameworthiness. Kelly G. Shaver. Spring-er-Verlag, New York, 1985. x, 194 pp. \$31. Springer Series in Social Psychology.

Autoimmunity and Endocrine Disease. Robert Volpé, Ed. x, 473 pp., illus. \$75. Basic and Clinical Endocrinology, 5.

Autoimmunity and the Thyroid. Paul G. Walfish, Jack R. Wall, and Robert Volpé, Eds. Academic Press, Orlando, Fla., 1985. xxviii, 450 pp., illus. \$44. From a meeting, Toronto, June 1984. The Bacteria. A Treatise on Structure and Func-tion. Vol. 8, Archaebacteria. J. R. Sokatch *et al.*, Eds. Academic Press, Orlando, Ela. 1985. xxii, 582

Eds. Academic Press, Orlando, Fla., 1985. xxiv, 582 illus. \$85 pp.,

pp., illus. \$85.
Behavioural Ecology. Ecological Consequences of Adaptive Behaviour. R. M. Sibley and R. H. Smith, Eds. Blackwell Scientific, Palo Alto, Calif., 1985. x, 620 pp., illus. \$96; paper, \$39. From a symposium, Reading, England, April 1984.
Between Theater and Anthropology. Richard Schechner. University of Pennsylvania Press, Phila-delphia, 1985. xiv, 354 pp., illus. \$35.
Bioactivation of Foreign Compounds. M. W. An-ders, Ed. Academic Press, Orlando, Fla., 1985. xvi, 555 pp., illus. \$85.

Biochemistry and Function of Vacuolar Adenosine-Triphosphatase in Fungi and Plants. Bernard P.

Triphosphatase in Fungi and Plants. Bernard P. Marin, Ed. Springer-Verlag, New York, 1985. xx, 259 pp., illus. \$32.50. Biochemistry of Storage Carbohydrates in Green Plants. P. M. Dey and R. A. Dixon, Eds. Academic Press, Orlando, Fla., 1985. xiv, 378 pp., illus. \$79. Biogeography. An Ecological and Evolutionary Approach. C. Barry Cox and Peter D. Moore. 4th ed. Blackwell Scientific, Palo Alto, Calif., 1985. viii, 244 pp. 319. 4 pp., illus. Paper, \$19. Biology of Fertilization. Charles B. Metz and Al-

bology of refunction. Charles B. Metz and Al-berto Monroy, Eds. Academic Press, Orlando, Fla., 1985. Two volumes. Vol. 1, Model Systems and Oogenesis. xviii, 391 pp., illus. \$75. Vol. 2, Biology of the Sperm. xx, 475 pp., illus. \$75. Vol. 3, The Fertilization Response of the Egg. xviii, 469 pp., illus. \$75. illus. \$75.

Biology of Menopause. The Causes and Conse-quences of Ovarian Ageing. R. G. Gosden. Academ-ic Press, Orlando, Fla., 1985. xvi, 188 pp., illus.

Change in the Amazon Basin. John Hemming, Ed. Manchester University Press, Dover, N.H., 1985. Two volumes. Vol. 1, Man's Impact on Forests and Rivers. x, 222 pp., illus. \$38.50. Vol. 2, The Frontier after a Decade of Colonisation. x, 295 pp., illus. \$38.50. From a symposium, Manchester, England, Sent 1092

Sept. 1982. Chemically Mediated Interactions between Plants and Other Organisms. Gilliato A. Cooper-Driver, Tony Swain, and Eric E. Conn, Eds. Plenum, New York, 1985. x, 246 pp., illus. \$45. Recent Advances in Phytochemistry, vol. 19. From a symposium, Boston, July 1984.

Chemistry. Experiment and Theory. Bernice G. Segal. Wiley, New York, 1985. xxiv, 999 pp., illus. \$34.95.

Chemistry of Hydrocarbon Combustion. D. J. Hucknall. Chapman and Hall, New York, 1985. viii,

Hucknall. Chapman and Hall, New York, 1985. viii, 415 pp. \$85. Chronic Treatments in Neuropsychiatry. Dargut Kemali and Giorgio Racagni, Eds. Raven, New York, 1985. xviii, 219 pp., illus. \$45. Advances in Biochemical Psychopharmacology, vol. 40. Chronobiology 1982–1983. Erhard Haus and Hugh F. Kabat, Eds. Karger, Basel, 1984. xxii, 574 pp., illus. \$127. From a conference, Minneapolis, Sept. 1981. 1981

Class and Reform. School and Society in Chicago, 1880–1930. David John Hogan. University of Penn-sylvania Press, Philadelphia, 1985. xxvi, 328 pp.,

Clinical Applications of Rational-Emotive Therapy. Albert Ellis and Michael E. Bernard, Eds. Plenum,

New York, 1985. xviii, 353 pp. \$39.50. Colour. Hazel Rossotti. Princeton University Press, Princeton, N.J., 1985. 240 pp., illus. Paper, \$8.95.

Comets. The Swords of Heaven. David Ritchie. New American Library, New York, 1985. xii, 238 pp. Paper, \$8.95

Commodore 64 Assembly Language. A Course of Study Based on the DEVELOP-64 Assembler/Edi-tor/Debugger. W. Douglas Maurer. Computer Sci-ence Press, Rockville, Md., 1985. xvi, 416 pp. ence Press, Paper, \$19.95

Communication Problems in Autism. Eric Schopler and Gary B. Mesibov, Eds. Plenum, New York, 1985. xviii, 333 pp. \$35. Current Issues in Autism. From a conference, 1983.

Yofk, 1965. Xviii, 555 pp. 355. Current issues in Autism. From a conference, 1983.
Computer Work Stations. A Manager's Guide to Office Automation and Multi-User Systems. Her-man Holtz. Chapman and Hall, New York, 1985.
xvi, 302 pp., illus. \$24.50.
Concert Hall Acoustics. Yoichi Ando. Springer-Verlag, New York, 1985. xii, 151 pp., illus. \$41.50.
Springer Series in Electrophysics, vol. 17.
Connected Speech. The Interaction of Syntax and Phonology. Ellen M. Kaisse. Academic Press, New York, 1985. viii, 206 pp. \$39.50.
Consensus and Penalties for Ignorance in the Medi-cal Science. Implications for Information Transfer. J. Michael Brittain, Ed. Taylor Graham, London, 1985. iv, 188 pp. Paper, \$22. British Library Re-search and Development Report 5842.
Consider a Spherical Cow. A Course in Environ-

scarch and Development Report 5842. Consider a Spherical Cow. A Course in Environ-mental Problem Solving. John Harte. Kaufmann, Los Altos, Calif., 1985. xvi, 283 pp., illus. \$24.95; paper, \$12.95.

Des Filtos, Filtos, Rvi, 265 pp., https://doi.org/10.1016/jp.
 Des Filtos, Standard Competition on the Path to Fusion Energy. National Academy Press, Washington, D.C., 1984. x, 131 pp. Paper, \$10,95.
 Culture and the Evolutionary Process. Robert Boyd and Peter J. Richerson. University of Chicago Press, Chicago, 1985. viii, 331 pp. \$29,95.
 Cutting Edge Technologies. National Academy of Engineering. National Academy Press, Washington, D.C., 1984. viii, 192 pp., illus. Paper, \$18,95.
 Data for Radioactive Waste Management and Nuclear Applications. Donald C. Stewart. Wiley-Interscience, New York, 1985. xii, 297 pp., illus. \$54,50.
 Day of Trinity. Lansing Lamont. Atheneum, New York, 1985. xii, 364 pp. + plates. Paper, \$11.95.
 Reprint, 1965 ed.
 Density Functional Methods in Physics. Reiner M.

Density Functional Methods in Physics. Reiner M. Density Functional Methods in Physics. Reiner M. Dreizler and João da Providência, Eds. Plenum, New York, 1985. viii, 533 pp., illus. \$85. NATO ASI Series B, vol. 123. From an institute, Alcabideche, Portugal, Sept. 1983. The Diabetic Pancreas. Bruno W. Volk and Ed-ward R. Arquilla, Eds. 2nd ed. Plenum, New York, 1985. xxiv, 628 pp., illus. \$79.50. Differential Manifolds and Theoretical Physics. W. D. Curtis and F. R. Miller. Academic Press, Orlan-do, Fla., 1985. xx, 396 pp. \$69. Disposal of Chemical Munitions and Agents. Na-tional Academy Press. Washington. D.C., 1984.

tional Academy Press, Washington, D.C., 1984. xviii, 216 pp., illus. Paper, \$16.50. Disposal of Industrial and Domestic Wastes. Land and Sea Alternatives. Board on Ocean Science and Policy, National Research Council. National Acade-my Press, Washington, D.C., 1984. xiv, 210 pp. Paper, \$16.50.

Doctors and Medicine in Early Renaissance Flor-

Princeton, N.J., 1985. xii, 299 pp. \$40. Drawing with Computers. Mark Wilson. Putnam, New York, 1985. 128 pp., illus. Paper, \$9.95. A Perigee Book

Dynamic Light Scattering. Applications of Photon Correlation Spectroscopy. Robert Pecora, Ed. Ple-num, New York, 1985. xiv, 420 pp., illus. \$59.50.

Dynamical Phenomena at Surfaces, Interfaces and Superlattices. F. Nizzoli, K. H. Rieder, and R. F. Willis, Eds. Springer-Verlag, New York, 1985. xiv, 329 pp., illus. \$25.50. Springer Series in Surface Sciences, vol. 3. From a school, Erice, Italy, July

**Dynamical Properties of Solids.** Vol. 5, Mössbauer Effect, Structural Phase Transitions. G. K. Horton and A. A. Maradudin, Eds. North-Holland, New York, 1984. viii, 500 pp., illus. \$96.25. **Dynamical Systems and Cellular Automata.** J. De-

mongeot, E. Golès, and M. Tchuente, Eds. Academ-ic Press, Orlando, Fla., 1985, xvi, 399 pp., illus. \$39.50. From a conference Luminy, France, Sept. 1983

1983. Einstein in America. The Scientist's Conscience in the Age of Hitler and Hiroshima. Jamie Sayen. Crown, New York, 1985. xii, 240 pp., illus. \$17.95. Electricity and Magnetism. Munir H. Nayfeh and Morton K. Brussel. Wiley, New York, 1985. xvi, 619 pp., illus. \$31.95. Electrochemical Synthesis of Inorganic Com-pounds. A Bibliography. Zoltán Nagy. Plenum, New York, 1985. xiv, 474 pp. \$75. Electronic Synthesis of Speech. R. Linggard. Cam-bridge University Press, New York, 1985. x, 149 pp. \$29.95.

Greenland Ice Core. Geophysics, Geochemistry, (Continued on page 343)

# Personnel Placement

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#### **POSITIONS WANTED**

M.D., Cancer Cell Biologist, with interests in essential fatty acids and prostaglandins; experienced in tissue culture techniques, G.C., animal tumor model development, mutagenesis and induction of differentiation in vitro. Has interesting ideas on gene/oncogene expression, macrophage activation, tumor cell killing by lymphocytes and macrophages, and prevention of radiation-induced genetic damage. Currently supervising a clinical trial with 90 percent success rate in Hodgkins. Publications. Seeks fulltime research position in a university or research organization. Box 223, SCIENCE. X

Clinical Biochemist/Toxicologist, Ph.D., A.A.C.C.approved postdoctoral training. Certified by the American Board for Clinical Chemistry in clinical chemistry and toxicological chemistry. Florida Clinical Laboratory Director's License (chemistry). Nine years of experience in general clinical chemistry, immunoassay, chromatography, special chemistry, and toxicology. Expert witness and environmental experience. Also experienced in human in vitro fertilization and embryo transfer. Seeks government, industry, or private service position. Available October 1985. Box 212, SCIENCE. 10/18, 25

Immunologist. Ph.D. 1970. Hybridoma/monoclonal antibody specialist. Extensive background in university and industrial research in cellular and molecular immunology. Supervisory experience. Excellent publications and references. Seeking position in academia or industry. Box 202, SCIENCE. X

Immunologist, Virologist. Ph.D. Experience in research and diagnostic virology, immunochemistry, molecular biology, radioimmunoassays, hybridoma, and research with AIDS. Good publications. Seeking joint venture in commercial R&D and diagnostics. Box 217, SCIENCE. X

#### POSITIONS WANTED

**Experimental Neuropathologist.** Ph.D., M.D.Sc., European education and degrees. Trained in electron microscopy and electrophysiology. Distinguished scientific record (cerebral ischemia/stroke/ head trauma). Several publications. Experience in leading research teams. Teaching experience in neurosciences and histology (normal/pathology). Formerly affiliated with one of Europe's largest research hospitals, currently at one of America's leading medical science institutions. Excellent references. Available December 1985; seeking position in academia or industry. Box 206, SCIENCE.

Geologist. Bachelor of Science, Colorado State, August 1984. Seeking entry-level position: geologist assistant or geohydrologist assistant (attended Ohio University Groundwater and Hydrology Course). Knowledge of USGS equipment (groundwater, geophysical, survey). Active AAAS member since 1982. Will relocate/travel. Please inquire: Kevin Sheedy, 39 Barter, Hicksville, N.Y. 11801. 10/18, 25

Microbiologist. Ph.D. (1978). Seeks opportunity as scientific technical writer/editor. Industrial position desired. Six years of experience in *Bacillus subtilis* research, manuscript preparation, and literature reviews. Widely published. Thomas J. Gryczan, 3 Norcroft Road, Jersey City, New Jersey 07305. Telephone: 201-451-5794. X

Hopkins-trained **Molecular Geneticist** seeks tenuretrack faculty position at assistant/associate professor level in non-urban Northeast. Box 225, SCI-ENCE. X

Neurochemist/Biochemist/Cell Biologist. Ph.D. 1978. Five years of postdoctoral experience; 2 years of research experience as research assistant professor. Expertise in ligand-receptor/second messenger interactions, tissue culture. Good publication record. Excellent references. Seeks challenging position. Box 222, SCIENCE. X

**Physiologist/Astrophysicist**, better at being innovative than getting grants; seeks position to work on ion transport theory or optical measurements in biological systems. Box 215, SCIENCE. 10/18, 25

Product/Business Analyst, Project Manager, M.A. biology, M.B.A. business. Research thesis on the teratogenic effects of a chemotherapeutic agent. Thorough knowledge of biochemical and cytological techniques. Business courses in finance, marketing, and management. Desires pharmaceutical/R&D/or institutional setting. Box 224, SCIENCE. 10/18, 25

**Technical Writer/Editor** with neuroscience Ph.D. biomedical, postdoctoral training, and industrial experience; seeks writing, editing, and research contracts. Telephone: 608-455-2652. P.O. Box 26, Brooklyn, Wis. 53521. X

**Technician, Biochemistry**, 8 years of research experience; presently employed; residing in New York City; seeks stimulating position; university setting preferred, would consider other. Box 221, SCI-ENCE. 10/18, 25; 11/1, 8

#### POSITIONS OPEN

ASSISTANT PLANT PATHOLOGIST/EXTENSION PLANT PATHOLOGIST. The Department of Plant Pathology, Washington State University (WSU), has an opening for a tree fruit plant pathologist. The position is tenure-track, full-time (12-month) with a split appointment (67 percent research-33 percent extension) located at the WSU Tree Fruit Research Center in Wenatchee, Washington. Responsibilities will include: (i) development of a comprehensive research program on the etiology, epidemiology, and control of pre-harvest fungal and/or bacterial diseases of the aerial portions of fruit trees grown commercially in eastern Washington; (ii) conduct planned educational programs, train county agents, and support county-sponsored educational activities. Closing date for applications is 15 December 1985. Send letters of application indicating: (i) areas of research interest and goals, (ii) experience in research and extension, (iii) curriculum vitae including official transcripts of all undergraduate and graduate education, (iv) reprints of appropriate publications, and (v) names, addresses, and telephone numbers of at least three references whom we may contact. Send to: Dr. Ronald P. Covey, Tree Fruit Research Center, 1100 North Western Avenue, We natchee, Wash. 98801.

#### POSITIONS OPEN

#### Tenure-Track Assistant Professor Position in the Division of Reproductive Biology at the Johns Hopkins University

The Division of Reproductive Biology, Johns Hopkins University (JHU), invites applications for a tenure-track ASSISTANT PROFESSOR position. The person will be expected to establish a strong independent research program and to teach at the graduate level. The field of interest is open although some preference may be given to candidates interested in the molecular or immunological aspects of reproductive biology. Send résumé, summary of research interests, and names of three references by 15 November 1985 to: Dr. Larry L. Ewing, Division of Reproductive Biology, Department of Population Dynamics, Johns Hopkins School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, Md. 21205. JHU is an Affirmative Action/Equal Opportunity Employer.

Applications are invited for a tenure-stream position at the ASSISTANT PROFESSOR level in the area of molecular genetics.

Candidates should have a Ph.D. degree and, preferably, additional research experience in recombinant DNA techniques. Capability in the field of control of gene expression and gene transfer is essential. Preference may be given to candidates with a strong background in plant molecular biology.

The post will take effect on 1 July 1986, or earlier if a suitable candidate is found. The salary range at the assistant professor level, for the period 1 April to 30 June 1986, will be \$29,501 to \$38,009.

Send curriculum vitae and the names of at least three referees to: Dr. John King, Department of Biology, University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N 0W0, by 31 December 1985.

#### CALIFORNIA INSTITUTE OF TECHNOLOGY ASSISTANT PROFESSOR OF APPLIED MICROBIOLOGY

The Division of Engineering and Applied Science seeks qualified applicants for the tenure-track position of assistant professor of applied microbiology in the Environmental Engineering Science Program (EES). The candidates must have a strong interest in engineering applications, experience in the forefront areas of molecular biology, and evidence of a highly productive and creative research program. Applicants should send curriculum vitae, the names of at least three references, and an outline of proposed research to: Professor Michael R. Hoffmann, EES Search Committee Chairman, Environmental Engineering Science, W. M. Keck Laboratories, California Institute of Technology, Pasadena, Calif. 91125. Caltech is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

ASSISTANT OR ASSOCIATE PROFESSOR—BIO-CHEMISTRY. The Department of Chemistry and Biochemistry, Southern Illinois University at Carbondale, has available a tenure-track position in the Biochemistry Division beginning 16 August 1986. Candidate selected will be jointly appointed in the Department of Medical Biochemistry. Preference will be given to candidates with experience in biological chemistry dealing with membrane components or enzyme mechanisms. Minimum qualifications are a Ph.D. degree and postdoctoral training. Qualified candidates should send curriculum vitae, an outline of planned research program, and three letters of reference, before 16 December 1985, to: Dr. Joseph C. Schmit, Department of Chemistry and Biochemistry, Southern Illinois University is an Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR IN BIOLOGY

A tenure-track position in a Biology Department granting B.S. and M.S. degrees. Primary responsibilities include instruction in vertebrate and comparative physiology, endocrinology, and reproductive physiology. Preference will be given to a person who can also teach introductory biology at the freshman level. Applicant should submit evidence of scholarship by publications and potential to generate external funding for area of research. The successful candidate will be expected to develop a research program in physiology. Send, by 15 November 1985, letter of intent, transcript, and a list of three potential referees to: Dr. Robert Wilkinson, Chairman of Search Committee, Box 148, Department of Biology, Southwest Missouri State University (SMSU), Springfield, Mo. 65804–0095. SMSU is an Equal Opportunity/Affirmative Action Employer.

SCIENCE, VOL. 230

ASSISTANT PROFESSOR, ANATOMY. Purdue University; tenure track; research and teaching. Must possess Ph.D.; preference for those also having D.V.M. or M.D. Send résumé and references to: Dr. E. Hinsman, School of Veterinary Medicine, West Lafayette, Ind. 47907, by 10 November 1985. Purdue is an Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR—BEHAVIORAL NEUROSCIENCE

The Psychology Department at Northeastern University has a tenure-track position for a behavioral neuroscientist beginning in September 1986. Post-doctoral experience, or other evidence of outstanding promise in research, preferred. Responsibilities include teaching and direction of research at both undergraduate and graduate levels. In addition to a primary specialization in behavioral neuroscience, candidates whose interests and expertise overlap with one, or more, of the department's other areas of specialization (language and cognition, learning, perception) are particularly encouraged to apply. Send curriculum vitae, letters of reference, and copies of published research to: Dr. Helen Mahut, Chairwoman, Behavioral Neuroscience Search Committee, Department of Psychology, 282 Nightingale Hall, Northeastern University, 360 Huntington Avenue, Boston, Mass. 02115. Deadline for receipt of applications is J January 1986. Salary negotiable. Women and minorities are encouraged to apply. Northeastern University is an Equal Opportunity Employer.

#### ASSISTANT PROFESSOR OF BIOLOGY

The Department of Biology, Saint Mary's College, invites applications for a tenure-track position starting August 1986. Applicants should provide evidence of strong commitment and ability to teach a large (200 to 250 students), one-semester, nonmajors biology course with required laboratories. The successful candidate will also be expected to teach upper-level specialty courses, establish a research program, and direct undergraduate research projects. Expertise in invertebrate biology is required with specialty in parasitology or aquatic biology preferred, but other areas are not excluded. Electron microscopy experience is desirable. Ph.D. required by August 1986. Send curriculum vitae, brief outline of teaching/research interests and goals, copies of transcripts, three letters of reference, and selected reprints to: Dr. Doris J. Watt, Chairman, Search Committee, Department of Biology, Saint Mary's College, Notre Dame, Ind. 46556, by 1 December 1985. Saint Mary's College, a liberal arts college for women, is an Equal Opportunity Employer.

ASSISTANT PROFESSOR OF BIOLOGY. Twoyear appointment with the possibility of becoming tenure track to teach microbiology, immunobiology, and cell biology courses. Ability to teach human anatomy and physiology to nursing students helpful. Excellent teaching credentials necessary. Ability to direct undergraduate research important. Ph.D. required. Send letters, résumé, and transcripts to: Dr. L. M. Lutton, Biology Department, Mercyhurst College, Erie, PA 16546, by 20 December 1985.

Affirmative Action/Equal Opportunity Employer

#### ASSISTANT PROFESSOR OF BIOCHEMISTRY

A tenure-track position will be available in the Department of Biochemistry at Kansas State University in fall 1986. The successful applicant will have at least 2 years of postdoctoral experience. He or she will be expected to establish an independent research program and to participate in graduate and undergraduate teaching. Send résumé, a description of research plans, and the names of three references to: David J. Cox, Head, Department of Biochemistry, Kansas State University, Manhattan, Kans. 66506. Application deadline: 15 November 1985. Kansas State University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT OR ASSOCIATE PROFESSORS OF MEDICINE, College of Physicians and Surgeons, Columbia University; Pulmonary Division, Department of Medicine, The Presbyterian Hospital. Seek Board-eligible physician candidates for full-time academic role. Must have demonstrated ability in independent research. Send curriculum vitae and statement of long-term goals to: Dr. Peter R. B. Caldwell, Department of Medicine, College of Physicians and Surgeons, 630 West 168 Street, New York, N.Y. 10032.

Columbia University takes Affirmative Action to ensure Equal Opportunity.

**18 OCTOBER 1985** 

#### **POSITIONS OPEN**

#### Harvard University ASSISTANT PROFESSOR CELLULAR AND DEVELOPMENTAL BIOLOGY (CDB)

The Department of Cellular and Developmental Biology intends to make one and possibly more appointments at the assistant professor level, effective 1 July 1986. Our department covers a broad range of topics in cellular biology and developmental/molecular genetics. We are seeking outstanding candidates in these fields. We are particularly interested in possible appointments in the areas of vertebrate development, neurobiology, plant molecular biology, and cell biology. However, we will consider exceptional applicants in other fields as well. We encourage applications from women and minority groups. Applications should include curriculum vitae, reprints of publications, and a statement of research plans. Complete applications and three letters of recommendation, solicited by the applicant, should be received no later than 1 November 1985 by:

#### Diane Baldwin, Administrator CDB Search Committee Cellular and Developmental Biology The Biological Laboratories Harvard University 16 Divinity Avenue Cambridge, Mass. 02138

Harvard University is an Affirmative Action/ Eaual Opportunity Employer.

ASSISTANT PROFESSOR—ECOLOGY. Tenuretrack position beginning September 1986. To teach introductory ecology course, one additional course each year, and participate in team-taught introductory biology course. To engage in research which encourages participation by undergraduates. College assists in initial research funding; facilities include marine and terrestrial field stations. Postdoctoral research experience preferred. Send curriculum vitae, statement of research and teaching interests, and three letters of reference by 8 November 1985 to: Dr. William L. Steinhart, Department of Biology, Bowdoin College, Brunswick, Maine 04011. Bowdoin College is committed to Equal Opportunity through Affirmative Action and is especially eager to identify minority persons and women with appropriate qualifications.

ASSISTANT PROFESSOR—INSECT PEST MAN-AGEMENT/FIELD CROPS (EXTENSION/RE-SEARCH). Tenure track. Duties include extension (70 percent)—demonstration and implementation of insect pest management programs. Research (30 percent)—management of major insect pests of field crops. Send for full position description. Qualifications include a Ph.D. in entomology with training in insect pest management. Forward: (i) letter describing qualifications and interest in position, (ii) curriculum vitae, (iii) list of publications (include reprints), and (iv) transcripts (postsecondary education), and (v) names and addresses of three references to: M. J. Tauber, Chair, Department of Entomology, Cornell University, Ithaca, N.Y. 14853. Application deadline is 31 January 1986.

ASSISTANT PROFESSOR—INSECT PEST MAN-AGEMENT/FIELD CROPS (RESEARCH/TEACH-ING). Tenure track. Duties include research (70 percent)—primary emphasis on developing management systems for major insect pests of field crops. Teaching (30 percent)—course and seminar in pest management. Send for full position description. Qualifications include a Ph.D. in entomology with training in insect pest management. Forward: (i) letter describing qualifications and interest in position, (ii) curriculum vitae, (iii) list of publications include reprints), (iv) transcripts (postsecondary education), and (v) names and addresses of three references to: M. J. Tauber, Chair, Department of Entomology, Cornell University, Ithaca, N.Y. 14853. Application deadline is 31 January 1986.

BIOCHEMISTRY, ASSISTANT PROFESSOR— Tenure track, fall 1986. University of Montana, Department of Chemistry, seeks Ph.D. with expertise in nucleic acid biochemistry or closely related area. Evidence indicating ability to establish and maintain a vigorous research program and ability to teach graduate and undergraduate biochemistry courses is required. Send résumé and three letters of recommendation to be received by 16 December 1985 to: Professor Walter E. Hill, Department of Chemistry, University of Montana, Missoula, Mont. 59812. An Equal Opportunity/Affirmative Action Employer.

#### FACULTY POSITIONS DEPARTMENT OF MOLECULAR AND CELL BIOLOGY THE PENNSYLVANIA STATE UNIVERSITY

The Department of Molecular and Cell Biology of The Pennsylvania State University invites applications for junior and senior faculty positions. Outstanding individuals who use molecular approaches for the study of genetic, regulatory, and structural relationships in microbial, animal, and plant systems are sought. Special attention will be given to immunology and molecular cell biology, investigations with cellular eukaryotes (such as fungi and yeast), and plant molecular biology. Candidates for junior positions should have at least 2 years of pertinent postdoctoral experience and will be expected to develop timely and competitive independent research programs. Candidates for senior positions are expected to be internationally recognized leaders. A wide variety of interactions with our present 34 faculty members is possible in many areas of biochemistry, microbiology, and molecular and cell biology. We provide excellent physical facilities, a stimulating research environment, and competitive salary and benefits. A newly formed Biotechnology Institute supplecations should consist of curriculum vitae, copies of recent representative publications, and a brief but detailed description of resources already available at Penn State. Applications are filled thereafter. Submit applications are filled thereafter. Submit applications are filled thereafter. Submit applications to: Dr. Jean E. Brenchley, Head, Department of Molecular and Cell Biology, 108J Althouse Laboratory, The Pennsylvania State University, University Park, Pa. 16802.

An Affirmative Action/Equal Opportunity Employer

ASSISTANT PROFESSORSHIPS IN CELLULAR IMMUNOLOGY, DEVELOPMENTAL BIOLOGY, AND ANIMAL PHYSIOLOGY.

The Department of Biological Sciences has two tenure-track positions in the areas of CELLULAR IMMUNOLOGY and DEVELOPMENTAL BIOLO-GY and a 1-year leave replacement in the area of ANIMAL PHYSIOLOGY. All three positions start September 1986; the tenure-track positions have initial 3-year appointments. Applicants should have the Ph.D. degree, postdoctoral experience, and a strong commitment to both research and undergraduate teaching.

CELLULAR IMMUNOLOGIST: Preference will be given to those individuals who have demonstrated an ability to utilize molecular techniques to answer questions relating to cell interactions and/or membrane phenomena in immune recognition and function. Teaching responsibilities include introductory biology, cell biology, an advanced course in immunology, and the possibility of teaching virology and microbiology.

DEVELOPMENTAL BIOLOGIST: Preference will be given to animal biologists who have demonstrated expertise in utilization of biochemical and/or molecular techniques to investigate developmental problems in areas such as neurobiology, embryology, or pattern formation. The developmental biologist will teach introductory biology, intermediate and advanced courses in developmental biology, and possibly neurobiology.

ANIMAL PHYSIOLOGIST: This position will be filled by an individual with a specialty in vertebrate physiology. This individual will participate in teaching human biology, comparative anatomy, and animal physiology.

Applications will be accepted for review until 1 January 1986 or until the position is filled. Credentials will be reviewed when completed. Qualified individuals should send current curriculum vitae, a list of undergraduate courses, graduate transcripts, a brief outline of research plans, one letter of recommendation, and the names of two additional referees to: Dr. Gary C. Harris, Chairman, Department of Biological Sciences, Wellesley College, Wellesley, Mass. 02181.

Wellesley College is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR (MICROBIOLOGY) ASSISTANT PROFESSOR (MICROBIOLOGY). University of North Carolina at Charlotte (UNCC) has a tenure-track teaching/research position start-ing fall 1986. Teaching expectations include the developing of introductory, intermediate, and ad-vanced courses in speciality that will complement the offerings of the graduate and undergraduate programs. Strong research program expected. Expe-rience in pathogenesis and/or recombinant tech-niques is preferred. Minimum requirement is the Ph.D. Teaching experience preferred. Deadline for application is 15 December. Salary is competitive. Letter of application, résumé, transcripts, and three letters of recommendation are to be sent to: letters of recommendation are to be sent to:

Dr. Roger H. Trumbore, Chairman Department of Biology UNCC

Charlotte, N.C. 28223

UNCC is an Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR OF MICROBIOLOGY

The Department of Microbiology, University of Georgia, Athens, Georgia, invites applications for a full-time (9-month/year) tenure-track appreciations for a full-time (9-month/year) tenure-track appointment at the assistant professor level, effective September 1986. Applicants must have a Ph.D. and at least 2 years of postdoctoral experience. All applicants years of postdoctoral experience. All applicants should have demonstrated research competence with prokaryotic or eukaryotic microorganisms and plan to work in the general area of molecular genet-ics and physiology. The appointee is expected to establish a vigorous research program, to participate in undergraduate and graduate teaching, and to supervise graduate students. Applicants should forward curriculum vitae, a statement of future research interests, plus three supporting reference letters to: Chairman Search Committee

Chairman, Search Committee Department of Microbiology University of Georgia Athens, Georgia 30602

Applications should be postmarked no later than 15 December 1985.

An Equal Opportunity/Affirmative Action Institution

ASSISTANT PROFESSOR-MOLECULAR IMMU-NOLOGY. The Department of Microbiology at the Mount Sinai School of Medicine invites applications for a faculty appointment as assistant professor in the area of molecular immunology. This position offers an exceptional opportunity to conduct original research in an environment of active research and teaching located in a modern facility on Manhattan's upper East Side. Those interested should submit curriculum vitae, a list of publications, a summary of current research interests, and names of three references who may be contacted to: Search Committee Chairman, Department of Microbiology, THE MOUNT SINAI SCHOOL OF MEDICINE, One Gus-tave L. Levy Place, New York, N.Y. 10029. An Equal Opportunity Employer.

BIOCHEMISTRY FACULTY POSITION. The BIOCHEMISTRY FACULTY POSITION. The School of Chemistry, Georgia Institute of Technolo-gy, invites applications for a tenure-track position at the assistant-associate professor level. Candidates with research interests in genetic engineering or related areas of molecular biology are especially encouraged to apply, but outstanding candidates with research interests in other areas of biochemis-runville exercidenced Sand our jutipa gradu try will be considered. Send curriculum vitae, gradu try will be considered. Send curriculum vitae, gradu-ate and undergraduate transcripts, description of proposed research program, and three letters of recommendation to: **Professor Robert A. Pierotti**, **Director, School of Chemistry, Georgia Institute of Technology, Atlanta, Ga. 30332.** The deadline for receipt of applications and accompanying docu-ments is 15 December 1985. Georgia Tech is an Engled Conservativit/Affirmative Action Action Employee Equal Opportunity/Affirmative Action Employer

**BIOLOGIST.** The Biology Department of Vassar College seeks applicants for a tenure-track appoint-ment at the assistant professor level. Applicants must have expertise in molecular biology, cell biolo-gy, and biochemistry, with postdoctoral and teach-ing experience. Responsibilities include teaching at the introductory biology and intermediate as well as advanced levels. Candidates will be expected to involve undergraduates in their research program. Please send résumé, reprints, and three letters of recommendation by 1 December 1985 to: Chairman, Department of Biology, Vassar College, Poughkeep-sie, New York 12601. Affirmative Action/Equal Op-portunity Employer.

# ASSISTANT PROFESSOR— PERSONALITY/SOCIAL PSYCHOLOGY

The Psychology Department at Northeastern Uniset for a tenure-track position beginning in Septem-ber 1986. Postdoctoral experience is preferred, but candidates, in any event, must have earned the doctorate by September 1986 and should show evidoctorate by September 1986 and should show evi-dence of outstanding promise in research and teach-ing. Responsibilities include teaching and direction of research at the undergraduate and graduate lev-els, and development of a strong, basic research program. In addition to a primary specialization in personality and/or social psychology, candidates whose interests overlap with one or more of the department's other areas (language and cognition, learning, perception, neuroscience, and sensory psychology) are particularly encouraged to apply. Send curriculum vitae, letters of reference, and copies of research publications to: Chairman, Per-sonality/Social Search Committee, Department of Psy-chology—282NI, Northeastern University, 360 Hun-tington Avenue, Boston, Mass. 02115. Women and minorities are encouraged to apply. Northeastern minorities are encouraged to apply. Northeastern University is an Equal Opportunity Employer.

# ASSISTANT/ASSOCIATE PROFESSOR-PHARMACOLOGY

The Department of Pharmacology, Creighton University School of Medicine in Omaha, Nebraska, versity School of Medicine in Omaha, Nebraska, invites applications for a regular tenure-track faculty position starting January 1986. Applicants must have a Ph.D. in pharmacology with demonstrable re-search and teaching accomplishments with postdoc-toral experience. Preference will be given to those individuals with ongoing research activity in exo-crine gland cytopharmacology and/or receptor phar-macology. Teaching responsibilities include lectures to medical, dental, and pharmacy students with a time commitment compatible with research responsibilities. Please send curriculum vitae, bibliogra-phy, and three letters of reference to: Dr. Frank Dowd, Department of Pharmacology, Creighton Uni-versity School of Medicine, Omaha, Neb. 68178.

Affirmative Action/Equal Opportunity Employer

#### University of Maryland at College Park

The Institute for Physical Sciences and Technology has a nontenure-track position available for an AS-SISTANT RESEARCH SCIENTIST interested in developing predictive systems for transport properties of fluids and fluid mixtures. The candidate must be familiar with theories of transport properties such as kinetic theory, mode-coupling theory, generalized corresponding states, have experience in the theo-retical analysis of experimental techniques and results and a demonstrated interest in the interpreta tion of property data for technologically important fluids.

Send résumé and names of three references to: Professor James A. Yorke, Institute for Physical Science and Technology, University of Maryland, College Park, Maryland 20742.

#### ATHEROSCLEROSIS RESEARCH

The Cardiovascular Research Center, associated with a major hospital, is seeking nationally recog-nized research scientists in the fields of cell biology and pharmacology. The CELL BIOLOGIST must have a strong background in tissue culture of vascular cells and an interest in cellular lipid metabolism or action of growth factors. The PHARMACOLOof action of growth factors. The **FHARMACOLO GIST** must have a background in mechanisms of leukocyte activation or vascular cell metabolism, particularly as related to the initial etiology and development of atherosclerosis. The scientists would participate in a multidisciplinary approach to the early detection and prevention of atherosclerosic vascular change. Applicants must hold a Ph.D. and/ vascular change. Applicants must hold a Ph.D. and/ or M.D. degree. Salary commensurate with qualifi-cations. Please send a statement of research inter-ests and complete curriculum vitae to: **Box 208, SCIENCE** 

BIOPHYSICAL CHEMISTRY postdoctoral position is available fall 1985. Enzymes, visual pigments, and bacteriorhodopsin are being studied by resonance Raman spectroscopy in a state-of-the-art equipped laboratory. Rich detailed molecular information of active sites is provided by this new probe. Appli-cants should possess a desire to pursue challenging new problems. Send curriculum vitae and three letters of recommendation to: Dr. R. Callender, Physics Department, City College of New York, New York, N.Y. 10031. An Equal Opportunity Employer.

#### POSITIONS OPEN

ASSISTANT SCIENTIST position in solid state laser spectroscopy on DOE- and NSF-funded projects to study fundamental dynamic processes which occur in organic insulators doped with optically active ions. Instruction of graduate students and some teaching involved. Candidates must have a Ph.D. in laser spectroscopy in physics; 2 years of teaching experience; 2 years of research experience in the following: laser spectroscopy of atoms and mole-cules and of optically active ions in solids, use and maintenance of high resolution cw dye and pulsed laser equipment. One year of research experience with cryogenic techniques. Minimum of five publica-tions in the field; 40 hour-week minimum. Salary: \$23,000. Send résumé and two references by 20 November to: E. Breitweizer, Job Service, 206 North Broom Street, Madison, Wis. 53707. An Equal Op-portunity Employer; employer-paid ad.

#### BIOCHEMIST

Studies chemical processes of organisms. Isolates and analyzes the role(s) of sterol carrier proteins in the intracellular movements of free and esterified cholesterol in adrenocortical tissue. Develops spe-cific assays for sterol carrier proteins; determines affinity of sterol carrier proteins for phospholipids; and extracts and quantitatively measures lipid fracand extracts and quantitatively measures lipid frac-tions from body tissues using gas/liquid/chromatog-raphy mass spectrometry and thin-layer chromatog-raphy techniques. Ph.D. in chemistry; \$22,500. Send references and curriculum vitae to: Dr. George V. Vahouny, Department of Biochemistry, The George Washington University School of Medicine and Health Sciences, 2300 I Street, NW, Washington, D.C. 20037. Affirmative Action/Equal Opportunity Em-ployer. plover.

#### BOTANICAL GARDEN DIRECTOR

The University of North Carolina at Chapel Hill and The University of North Carolina at Chapel Hill and its Department of Biology invite applications and nominations for the position of director of The North Carolina Botanical Garden (NCBG) beginning 1 July 1986. The appointment will be made at a tenure-track faculty rank commensurate with qualifications track faculty rank commensurate with qualifications and experience. The successful candidate will be expected to manage the Garden, carry on a research program, and will have limited teaching duties. Applications received after 1 December 1985 cannot be assured of consideration. Applicants should send complete curriculum vitae and four letters of recom-mendation to: Chairman of the NCBG Search Com-mittee, Department of Biology, Coker Hall 010A, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27514. The University of North Carolina is an Equal Opportunity/Affirmative Action Employer.

# CHAIRMAN DEPARTMENT OF MEDICINE THE UNIVERSITY OF ROCHESTER

The School of Medicine and Dentistry of the University of Rochester seeks nominations and ap-plications for the position, **professor and chairman**, Department of Medicine. The chairman provides leadership for large programs of research, clinical education, and patient care in the Medical Center's Strong Memorial Hospital and for a number of softilized bospitals. Applicants for the position must Strong Memorial Hospital and for a number of affiliated hospitals. Applicants for the position must have demonstrated qualifications for the manage-ment of such large programs as well as accomplish-ments in research, patient care, and education. Nominations or applications, including curriculum vitae, should be sent to: P. L. La Celle, Chairman of the Search Committee for Medicine, Box RBB, 601 Elmwood Avenue, Rochester, N.Y. 14642.

Equal Opportunity Employer, M/F

# DEPARTMENT CHAIR, DEPARTMENT OF CHEMISTRY, TUFTS UNIVERSITY

Tufts University invites applications and nomina-tions for the position of department chair, to begin 1 September 1986. Ph.D. required. Candidates must have established a distinguished record of research and teaching, in any field of chemistry, and have demonstrated evidence of leadership ability. The demonstrated evidence of leadership ability. The position requires a strong commitment to the con-tinuing development of departmental research and academic programs and of its faculty and resources. Expansion of the department's faculty and facilities is a high priority of the University. Applications from members of minority groups and women are encouraged. Applicants should submit curriculum vitae and have three letters of recommendation forwarded to: Search Committee, Department of Chemistry, Tufts University, Medford, Mass. 02155. Evaluation of applicants will begin 15 November 1985. An Equal Opportunity/Affirmative Action Em-plover. ployer.

## Immunochemist

Genetic Systems, a leader in the field of biotechnology, is currently recruiting a Ph.D. level scientist in its Immunodiagnostics research group.

Applications are invited from individuals with 1-5 years postdoctoral experience in a relevant field. Experience in immunoassay development, especially employing fluorescence detection, is desired. Industrial experience also preferred, but not required. Must have strong communication skills and ability to work effectively in a multidisciplinary team.

Located in the Pacific Northwest, Genetic Systems offers competitive salaries and benefits. Individuals of exceptional caliber are invited to send their curriculum vitae and names of three references to Karen Hedine, Personnel Manager, 3005 First Avenue, Seattle, Washington, 98121-1035. Equal Opportunity Employer.



#### THE JOHNS HOPKINS UNIVERSITY Department of Biology and McCollum-Pratt Institute

Applications are invited from outstanding candidates who have demonstrated originality and productivity for a junior-level tenuretrack FACULTY POSITION IN BIOCHEM-ISTRY. Preference will be given to applicants whose research interests are concerned with the relationships between structure and function in macromolecular assemblies, such as protein-nucleic acid complexes, multisubunit enzymes, biological membranes, contractile fibers, filaments or tubules. It is anticipated that the successful candidate will be strongly problem-oriented, and will also have expertise in biophysical techniques (such as x-ray crystallography, NMR spectroscopy) or molecularbiological techniques of structure manipulation (for example, site-directed mu tagenesis), or both. We are specifically interested in someone whose viewpoint is directed toward "molecular physiology" rather than molecular antomy, that is, the regulatory properties or other "system behavior" of macromolecular assemblies. The successful candidate will also participate in graduate/undergraduate teaching.

Applicants should submit curriculum vitae, bibliography, a two-page summary of research plans, copies of two representative publications or preprints, and names and addresses of three references. Interested applicants should forward this information by 30 November to:

Chairman, Biochemistry Research Committee Department of Biology The Johns Hopkins University 34th and Charles Streets Baltimore, Md. 21218 Johns Hopkins University is an E

The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.

# BIOCHEMISTRY POSITION

An immediate opening exists for an experienced laboratory professional to support an exciting new program in our growing health care division.

Qualified applicants will have a BS/MS degree or equivalent with relevant research laboratory experience in Biochemistry or Pharmacology. Experience in protein characterization, HPLC, cell culture techniques and small animal handling is desirable. The successful candidate will work on the development of new therapeutic agents for the treatment of cardiovascular diseases.

This position is located in our newly dedicated state-of-the-art Life Sciences Center in suburban St. Louis. Please forward your resume in confidence to: Dr. P.R. Schenkenberg; Box S-2; MON-SANTO COMPANY - G4NG; 800 N. Lindbergh Blvd.; St. Louis, MO 63167. An Equal Opportunity Employer M/F/H/V.

Monsanto

## MANAGER PHARMACOLOGY

Adria Laboratories, a growing division of an international healthcare company, has an immediate need for a professional to manage our Pharmacology Unit.

You must have demonstrated ability and hands-on experience in Pharmacokinetics and drug metabolism. You will coordinate all activities within the department and have a key role in regulatory submissions, support of medical and marketing activities and for evaluating new drug candidates.

The position, reporting to the Director of Research, requires a PhD in Pharmacology and 5+ years experience along with strong managerial and leadership qualities. You will find our compensation package is responsive to your future needs. For consideration, send your resume and salary history to:

> ADRIA LABORATORIES Attn: Steve Wolfe P.O. Box 16529 Columbus, OH 43216

An Equal Opportunity Employer M/F/H/V

Microbiologist, Animal Health Research

Pfizer

An equal opportunity employer

Pfizer Inc. has an immediate opening for a microbiologist within the Animal Health Division of Pfizer Central Research. Applicants must possess a PhD in microbiology and two or more years of post-doctoral experience with contemporary antibiotic testing procedures, bacterial pathogenesis and clinical microbiology. Duties include participation in the discovery and characterization of new antibiotics through management of ongoing test systems and the development of new *in vitro* and *in vivo* laboratory methodologies.

This position offers an excellent opportunity for professional recognition and career growth. Publication of important findings will be encouraged. We also offer competitive compensation, benefit package and the opportunity to live in an attractive Connecticut shore community. Please send resume and description of research accomplishments to: Jerry K. Larson, PhD, Manager of Employment, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.

18 OCTOBER 1985

#### UNIVERSITY OF SOUTHERN CALIFORNIA **Biological or Geological Oceanographer**

The Institute for Marine and Coastal Studies (IMCS) invites applications for two research faculty positions at the assistant, associate, or full research professor level in marine science. Applicants must professor level in marine science. Applicants must hold a doctorate degree and have an established research record in either (i) marine geology with a background and emphasis in sedimentology, chemi-cal or physical properties of sediments, (ii) marine geophysics with interests in reflection seismology, or (iii) biological oceanography with interests in plankton ecology, biogeochemistry, or remote sens-ine

ing. The successful applicants will be expected to generate external research funding which comple-ments the existing laboratory and seagoing research The president are nontenure and will programs. The positions are nontenure and will provide up to 50 percent University salary support. Interested individuals should send a résumé, includ-ing a statement of their research interests, past accomplishments, and the names of three individ-uals familiar with their work, to:

# Robert G. Douglas Director of Marine Studies Program Institute for Marine and Coastal Studies University of Southern California Los Angeles, California 90089–0741

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

#### CANCER MOLECULAR BIOLOGY

Applications are invited for several tenure-track faculty positions at the assistant or associate professor level in the Cancer Center of Northwest-ern University School of Medicine with academic appointments in the Departments of Molecular Biol-ogy and/or Microbiology-Immunology. Applicants should have a Ph.D. or an M.D. degree and several years of postdoctoral training. Candidates having research interest and experience in retroviruses, oncogenes, cellular regulatory mechanisms, growth factors, or the molecular biology of differentiation and development are especially encouraged to ap-ply. The successful applicants will be expected to develop vigorous independent research programs in the Cancer Center and to participate in the teaching of graduate and/or medical courses and in the train-ing of graduate and postdoctoral students in the Applications are invited for several tenure-track ing of graduate and/or medical context and in the train-ing of graduate and postdoctoral students in the rapidly expanding academic departments. Appli-cants should send complete curriculum vitae, a brief description of previous research and teaching interests (3 to 4 pages), a bibliography, and recommenda-tions from at least three references by 30 December 1985 to: Dr. David Shemin, Deputy Director, Cancer Center, Northwestern University School of Medicine, 303 East Chicago Avenue, Chicago, Illinois 60611; telephone: 312-908-5254.

Northwestern University is an Equal Opportunity/ Affirmative Action Employer and invites applica-tions from all qualified individuals.

# CHAIRPERSON BIOMEDICAL SCIENCES

Full-time position available as chair of Department of Biomedical Sciences and Pathology. Applicants should be actively engaged in significant research, have graduate-level teaching experience and a com-mitment of excellence in education, and evidence of administrative skills. Area of specialization may be in any one of the department's three divisions: anatomy/physiology, cell biology/biochemistry/ pharmacology, or pathology/microbiology. Salary and rank commensurate with experience. Equal Department/offirmative Action Fundower Send let-Opportunity/Affirmative Action Employer. Send let-ter of application and curriculum vitae by 1 January 1986 to: Dr. Richard J. Smith, Chairman, Biomedical Sciences and Pathology Search Committee, Washing-ton University School of Dental Medicine, 4559 Scott Avenue, St. Louis, Mo. 63110.

# CHAIRPERSON DEPARTMENT OF BIOCHEMISTRY

The University of Nebraska, College of Medicine, is conducting an active search for a chairperson of biochemistry. The successful candidate will be ex-pected to have an outstanding research career in biochemistry as well as a commitment to excellence in teaching. Interested applicants should submit curriculum vitae and the names of three references by 1 December 1985 to: William O. Berndt, Ph.D., Chairman of Advisory Committee. Office of the Dean. Chairman of Advisory Committee, Office of the Dean, Chairman of Advisory Committee, Office of the Dean, University of Nebraska College of Medicine, Wittson Hall-Room 5025, 42nd and Dewey Avenue, Omaha, Nebraska 68105. The University of Nebraska is an Equal Opportunity/Affirmative Action Employer.

#### POSITIONS OPEN

CASE WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE—Applications are invited for the position of CHAIRPERSON of the Depart-ment of Medicine. The appointee will also be DI-RECTOR of the Department of Medicine at Univer-sity Hospitals of Cleveland. In keeping with the tradition and quality of previous incumbents of these positions, we seek an individual with superior cre-dentials committed to academic excellence. There is a strong research base within the denartment, extena strong research base within the department, exten-sive clinical facilities and quality educational programs at the undergraduate, residency, predoctoral, postdoctoral, and continuing education levels. The department has developed excellent collaborative relationships with basic and clinical science depart-ments in the School and clinical departments of the efficient developed excellent with the science departaffiliate hospitals. Case Western Reserve University is an Equal Opportunity Employer. Applications should be sent to: Dr. David R. Bickers, Chairman of Search Committee, Department of Dermatology, Uni-versity Hospitals of Cleveland, 2074 Abington Road, Cleveland, Ohio 44106.

#### **CHAIRPERSON** DEPARTMENT OF ANATOMY MEDICAL COLLEGE OF OHIO-TOLEDO

Applications and nominations are invited for the Applications and nominations are invited for the position of chairperson of the Department of Anato-my. Candidates holding a Ph.D. or M.D. degree must be highly qualified individuals with nationally recognized credentials in research with senior aca-demic accomplishments. Administrative experience is desirable but not essential. The position offers an excellent opportunity to develop a leading academic department due to outstanding resources, scientific environment, and faculty positions. environment, and faculty positions.

Application or nomination should include curricu-lum vitae. Address correspondence to: James H. Freisheim, Ph.D., Professor and Chairman, Depart-ment of Biochemistry, Medical College of Ohio, C.S. Number 10008, Toledo, Ohio 43699. An Equal Op-portunity Employer, M/F.

Seeks GENERAL CURATOR (salary: \$44,430 per year) with an advanced degree in zoology and 3 years of professional experience, to be responsible for developing and coordinating programs involved in conducting research on animal exhibition, collec-tion care, and animal propagation objectives. Candi-dates must have experience in breeding captive animals of diverse taxonomic representation in a zoological setting and participation in international exotic animal breeding programs. Submit by 1 No-vember 1985, SF-171 (Personal Qualifications State-ment). curriculum vitae. copies of publications. and ment), curriculum vitae, copies of publications, and letters of reference to:

Employment Office Smithsonian Institution 900 Jefferson Drive, SW Room 1410 Washington, D.C. 20560 Attention: (85-438, SM) An Equal Opportunity Employer

#### **DEVELOPMENTAL-CELL BIOLOGIST**

DEVELOPMENTAL-CELL BIOLOGIST The Department of Biology of Emory University seeks applicants with postdoctoral experience for a tenure-track position at the assistant professor level to begin 1 September 1986. The candidate should have a strong research program and be prepared to participate in undergraduate and graduate teaching. Applications are encouraged from individuals study-ing developmental problems at the cellular level. Curriculum vitae, a statement of research interests, and the names and addresses of three referees should be submitted by 15 December 1985 to: Dr. William H. Murdy, Chairman, Department of Biolo-gy, Emory University, Atlanta, Ga. 30322. Emory University is an Affirmative Action/Equal Opportu-nity Employer. nity Employer.

Baylor College of Medicine is searching for a DI-RECTOR for its LABORATORY ANIMAL CARE PROGRAM. The task requires Board-certification/ eligibility in laboratory animal medicine and demon-strated experience in programmatic development. The college recently occupied a \$4.5 million central animal facility and is renovating its major satellite facilities. Competitive salary and academic appoint-ment are negotiable. Please send résumé and the names and addresses of three references, before 15 December 1985, to: Robert R. Rich, M.D., Chair-man, Search Committee, Baylor College of Medicine, DeBakey Center M929, One Baylor Plaza, Houston, Texas 77030. Baylor College of Medicine is an Affirmative Action/Equal Opportunity Employer.

#### POSITIONS OPEN

# CHEMISTRY REFERENCE LIBRARIAN

Reference librarian; temporary position, not to ex-ceed 2 years, available in University of California, Berkeley, Chemistry Library to establish a literature search service for faculty, researchers, and students in chemistry and chemical engineering. Must have library degree plus undergraduate degree in chemis library degree plus undergraduate degree in chemis-try. Must be able to search *Chemical Abstracts* files. Must have experience searching DIALOG and BRS. Full job description mailed on request. Salary in the \$27,156 to \$39,108 per annum salary range, depend-ing on qualifications. Position available 1 January 1986 or as soon thereafter as possible. Send résume, including names and addresses of three professional including names and addresses of three professional references, by 15 November 1985 to:

William E. Wenz, Library Personnel Officer Room 447 General Library University of California Berkeley, California 94720

The University of California is an Equal Opportuni-ty/Affirmative Action Employer.

DEAN OF SCIENCES AND MATHEMATICS— STEPHEN F. AUSTIN STATE UNIVERSITY. Ste-phen F. Austin State University invites applications and nominations for the position of dean of the School of Science and Mathematics, with duties to begin August 1986. Candidates are required to have an earned doctorate in a field within the school, successful university teaching experience, a strong record of research and other scholarly activities, demonstrated skills in the administration of universi-ty related monoperate activities, more leadership ty-related management activities, proven leadership ability, and a desire to work with the faculty and Closing date for completed applications is 1 November 1985. Closing date for completed applications is 15 November 1985. plication, résumé, and three letters of reference. Send inquiries, nomination, application, résumé, and letters of recommendation to: Dr. James M. Garrett, Chairman, Search and Screen Committee for Carrett, Charman, Search and Screen Committee for Dean of Sciences and Mathematics, Stephen F. Austin State University, Box 6123, SFA Station, Nacogdo-ches, Tex. 75962. Telephone: 409-569-3606. An Affir-mative Action/Equal Opportunity Employer.

ECOLOGICAL MODELER-A senior research ECOLOGICAL MODELER—A senior research assistant/research associate position is available to work on models of nutrients and carbon at the ecosystem level. Preference will be given a terrestri-al ecologist with M.S. or recent Ph.D. This appoint-ment will commence 1 December 1985. Submit résumé to: J. E. Hobbie, The Ecosystems Center, Marine Biological Laboratory (MBL), Woods Hole, Mass. 02543, by 15 November 1985. The MBL is an Affirmative Action/Equal Opportunity Employer.

# FACULTY POSITIONS IN PROKARYOTIC MOLECULAR GENETICS

Applications are invited for senior and junior tenure-track faculty positions in the Department of Microbiology. We are interested in applicants with research interests in prokaryotic molecular biology and/or bacterial genetics. Candidates should have made significant accomplishments in research and should be prepared to maintain an active, indepen-dent research program Excellent salaries startum should be prepared to maintain an active, indepen-dent research program. Excellent salaries, start-up funds, and research facilities are available. Teaching responsibilities are minimal and include participa-tion in courses for graduate, medical, and dental students. The department, among the most well-funded in the nation, provides a stimulating scien-tific environment and administers several NIH Insti-tutional Fellowship programs that are available to provide stipend support for predoctoral and post-doctoral students. doctoral students. The basic science departments of the University

of Alabama at Birmingham Medical Center continue to recruit outstanding faculty with strong research programs in biochemistry, cellular biology and physiology, immunology, animal virology, and other areas. A particular strength of the institution is the close cooperation between clinical and basic science researchers in areas such as cancer biology, arthritis and rheumatoid diseases, immunodeficiency disor-ders, bacterial and viral diseases, oral biology, and muscular-skeletal disorders.

Muscular-skeletal disorders. Applicants should submit curriculum vitae, a statement of research plans, and the names of three people from whom letters of recommendation can be requested. Applications should be sent to: Gillian Air, Chairman, Molecular Genetic Search Committee, Department of Microbiology, University of Ala-bama at Birmingham, Birmingham, Alabama 35294. An Equal Opportunity/Affirmative Action Employer

# **CHAIRPERSON**

Department of Physiology and Biophysics

#### UMDNJ-RUTGERS MEDICAL SCHOOL PISCATAWAY, NEW JERSEY

Applications and nominations are invited for Chairperson of the Department of Physiology and Biophysics. Applicants should be highly qualified individuals with significant research accomplishments and administrative experience or potential. The Depart-ment of Physiology and Biophysics is a vigorous, well-funded, molecularly oriented department. The position offers attractive opportunities for hiring new faculty and introducing substantial new research programs. Applications of nominations should include curriculum vitae. Address correspondence to: Bernard D. Goldstein, M.D., Professor and Chairman, Department **Environmental and Community Medi**cine, UMDNJ-Rutgers Medical School, Busch Campus, Piscataway, New Jersey 08854. Women and minorities are encouraged to apply. UMDNJ-Rutgers Medical School is an equal opportunity/affirmative action employer m/f/h/v.

University of Medicine and Dentistry of New Jersey

### Postdoctoral Scientist Analytical, Physical, and Structural Chemistry

The Analytical, Physical, and Structural Chemistry Department of Smith Kline & French Laboratories is seeking a postdoctoral scientist interested in the development of electrochemical detectors for liquid chromatography.

The successful candidate must have a Ph.D. in Chemistry with at least 2 years of hands on experience with HPLC. Preferred experience includes LCEC, computer programming and knowledge of electronics. Postdoctoral positions are normally of 2 years duration.

SK&F Research and Development offers an excellent salary, benefits and relocation package. Please submit your resume to: George P. Kissell, Jr., Manager, Personnel Relations, SK&F Laboratories, 1558 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V



# PhD CHEMISTS Post-Doctoral Fellowships

The Photon Processes Group of Amoco Corporation is currently accepting applications for highly motivated PhD Bioinorganic Chemists and Biophysicists to begin work early in 1986. Working within the Amoco Research Center, candidates will conduct picosecond photochemical studies of synthetically prepared DNA protein complexes with Drs. John H. Clark and Thomas L. Netzel.

Qualified individuals must possess demonstrated experimental ability, standard synthetic skills involving inorganic and biological sample preparation, and familiarity with HPLC instrumentation and laboratory computers.

These one-year appointments (renewable for a second year by mutual agreement) are ideally suited for professionals seeking invaluable exposure and the opportunity to work in a first-class industrial environment. Competitive industrial level salary and attractive benefits package offered. Because we are located in Naperville, Illinois, just 30 miles west of Chicago, a choice of urban, suburban, or rural living is available to you.

If you meet the above qualifications, please send your resume, transcripts of scientific and mathematical courses, and three (3) letters of recommendation to:



Professional Recruiting Coordinator **AMOCO RESEARCH CENTER** P.O. Box 400, Dept. TLN/10-11 Naperville, IL 60566 NO PHONE INQUIRIES PLEASE

Equal Opportunity Employer M/F/H

# Biochemist/ Cell Biologist Atherosclerosis Research

Smith Kline & French Research Limited is a leader in the international pharmaceutical field with a strong commitment to research and development.

A Senior Biochemist/Cell Biologist is required to play a key role in our expanding programme of atherosclerosis research. Duties will include participating in existing drug evaluation and development projects and initiating his/her own programme of original research to serve as the basis for future drug discoveries.

We are looking for someone with a substantial record of self-initiated research, and with experience in the areas of lipoproteins and cholesterol transport and metabolism.

We offer a substantial salary and an excellent range of company benefits including, for candidates of appropriate experience and achievement, a company car.

Please send a CV outlining your qualifications and experience to Penelope Bucknell, Personnel Officer, Smith Kline & French Research Limited, The Frythe, Welwyn, Herts. quoting reference number S/138/85/PJB.

#### **EVOLUTIONARY BIOLOGIST**

The Department of Zoology, University of Flori-da, invites applications for a 9-month, tenure-track position, beginning August 1986, at the assistant or associate professor level. Applicants' research should be in the area of EVOLUTIONARY BIOLO GY, using biochemical or cellular approaches to the genetic aspects of evolution and/or systematics. We seek a zoologist with broad comparative interests who complements departmental programs in ecology, physiology, behavior, and evolutionary biology The successful candidate will establish a productive research program, teach undergraduate courses, and develop a graduate course in his/her specialty. Ap-plicants should submit curriculum vitae, a succinct statement of research and teaching interests, repre-sentative publications, and names, addresses, and telephone numbers of three references by 2 Decem-ber 1985 to:

> Dr. Thomas C. Emmel Chair, Search Committee Department of Zoology University of Florida Gainesville, Florida 32611

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

**EVOLUTIONARY GENETICIST AT STONY BROOK.** We seek qualified applicants for a tenure-track faculty position in the area of experimental evolutionary genetics, starting September 1986. Al-though we will seriously consider any qualified candidates in the general field, we will give prefer-ence to individuals who address evolutionary prob-lems via molecular or developmental aspects of genetics, using any of a broad range of experimental systems, including *Drosophila*, *Coenorhabditis*, maize, mice, or other organisms. To apply, please send curriculum vitae and reprints, and have three letters of reference sent by 30 November to: Dr. **Walter Eanes**, Head, Genetics Search, Ecology and Evolution Department, State University of New York Valuet Earles, Head, Genetics Search, Ecology and Evolution Department, State University of New York (SUNY), Stony Brook, Stony Brook, N.Y. 11794. SUNY, Stony Brook, is an Affirmative Action/Equal Opportunity Educator and Employer. AK Number 260-85.

# FACULTY POSITIONS IN MOLECULAR GENETICS

The Department of Microbiology and Molecular Genetics at the University of Cincinnati, College of Medicine, is expanding its faculty and is currently searching for four individuals to fill tenure-track searching for four individuals to fill tenure-track positions. Applicants should be applying molecular approaches to immunology, microbial pathogenesis, virology, or developmental or oncogene biology. Applicants should submit curriculum vitae and a summary of research accomplishments and future research plans, along with the names of three scien-tists willing to write letters of recommendation. Dr. Jerry B. Lingrel, Chairman, Department of Microbi-ology and Molecular Genetics, University of Cincin-nati College of Medicine, Cincinnati, Ohio 45267-0524. The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer.

FACULTY-NEUROCHEMIST. A junior or senior position for a neurochemist with extensive experi-ence in the neurochemistry of neurological pathophysiology and behavior is available in the Depart-ment of Basic Sciences, University of Illinois, Col-lege of Medicine, at Peoria. Responsibilities: pro-vide leadership in teaching of medical students and residents; conduct original investigations into neurochemical processes and the neurochemistry of be-havior and diseases of the nervous system including epilepsy; and establish collaborative research pro-grams within the College of Medicine. Require-ments: Ph.D. in neurochemistry or biochemistry with major emphasis in neurochemistry; publication record in neurochemical pathophysiology and neu-rochemistry of behavior; record of extramural funding for research (associate or full professor); record of excellence in teaching medical students; and minimum of 6 years of experience in academic medical setting since receiving Ph.D. degree. Posi-tion available 1 January 1986 or after. Salary and rank commensurate with qualifications and respon-bility. *The University of Ulivois* is an Affirmative rank commensurate with qualifications and respon-sibility. The University of Illinois is an Affirmative Action/Equal Opportunity Employer. Send curricu-lum vitae and names of three references to: Phillip C. Jobe, Ph.D., Professor and Chair, Department of Basic Sciences, University of Illinois College of Medi-cine at Peoria, Box 1649, Peoria, Ill. 61656. Applica-tions will be received until the position is filled.

FACULTY POSITION-BIOCHEMISTRY. The De-FACULTY POSITION—BIOCHEMISTRY. The De-partment of Chemistry at the University of Oklaho-ma has a tenure-track opening for an assistant pro-fessor in biochemistry. Minimum qualifications for applicants include a Ph.D. in biochemistry, chemis-try, or closely related field, as well as excellent credentials in, and a strong commitment to, both research and teaching in biochemistry. The success-ful applicant will be expected to establish a vigorous research program in biochemistry and to teach effecresearch program in biochemistry and to teach effec-tively at both the undergraduate and graduate levels. tively at both the undergraduate and graduate levels. Minority candidates are most strongly encouraged to apply. Applicants should submit a complete résu-mé, including research and teaching experience, a description of ongoing and future research plans, and a statement of teaching interests. Applicants should also have at least three letters of reference sent by 15 November 1985 to: Dr. Arthur E. John-son, Department of Chemistry, University of Oklaho-ma, Norman, Oklahoma 73019. The University of Oklahoma is an Equal Opportunity/Affirmative Ac-tion Employer. tion Employer.

#### FACULTY POSITION IN BIOCHEMISTRY

Applications are invited for a tenure-track position at the assistant or associate professor level. Prefer-ence will be given to individuals with principal research interests in neurobiology at the molecular/ cellular level. Candidates should have two or more ears of postdoctoral experience and a strong commitment to research.

Please send curriculum vitae, a summary of research plans, and the names of three references to: Search Committee, Department of Biochemistry, Dartmouth Medical School, Hanover, New Hampshire 03756. Dartmouth Medical School is an Equal Opportunity/ Affirmative Action Employer.

#### FACULTY POSITIONS IN PHARMACOLOGY

The Department of Pharmacology of The University of Texas Health Science Center at Dallas seeks sity of Texas Health Science Center at Dallas seeks applications for tenure-track positions at the level of assistant or associate professor. Applicants must have a relevant Ph.D. or M.D. degree, postdoctoral training, and show evidence of firm commitment to a career in independent research. We are particularly interested in considering individuals with an appro-priate background who wish to apply techniques of molecular or cellular biology or biochemistry to fundamental problems of pharmacological interest. Responsibilities will also include teaching of medical and/or graduate students after the first year of em-lowment. Send curriculum vitae and a brief descripployment. Send curriculum vitae and a brief descrip-tion of proposed research to: Dr. Alfred G. Gilman, Chairman, Department of Pharmacology, University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, Tex. 75235. An Equal Op-portunity/Affirmative Action Employer.

#### **BRANDEIS UNIVERSITY** FACULTY POSITION IN IMMUNOLOGY

Applications are invited for a tenured or tenuretrack position in the Department of Biology and Rosenstiel Basic Medical Sciences Research Center, Brandeis University. Candidates should have a Ph.D. or M.D. degree and demonstrated accomplishments in research involving molecular genetic plishments in research involving molecular genetic approaches to studies of the immune system. Ap-pointments at the assistant, associate, or full profes-sor levels will be considered. Applicants should submit curriculum vitae, a brief description of re-search plans, and names of at least three references to: Dr. Alfred Nisonoff, Rosenstiel Center, Brandeis University, Waltham, Mass. 02254. Deadline for ap-plications is 15 December 1985. Brandeis University is an Equal Opportunity Employer.

The Department of Geology anticipates a tenure-track position will be available in **GEOPHYSICS** starting August 1986. The rank and salary are open and subject to negotiation by the successful appli-cant with the dean. Applicants in all areas of geophysics will be considered. Current areas of interest in geophysics in the department are: seismology, explorational and regional geophysics, tectono-physics. Before 31 December 1985, send a detailed résumé, including curriculum vitae, publications, and any other pertinent information as well as the names and addresses of three references, to: I. Lerche, Department of Geology, University of South Carolina, Columbia, S.C. 29208.

The University of South Carolina is an Equal Oppor-tunity/Affirmative Action Employer.

#### POSITIONS OPEN

# FACULTY POSITION CORNEAL PHYSIOLOGY

Assistant professor position (tenure-track) at the University of California, Berkeley, School of Op-tometry, is available for the 1986–1987 year, or earlier. Doctoral degree with postdoctoral research experience or equivalent is required. Preference will be given to candidates with interests in basic and applied problems in corneal physiology. An interest in physiological properties associated with contact lens use is desirable. Candidates are sought with training in biophysics, pharmacology, physiology, or bioengineering. A strong commitment to excellence in teaching, both at the professional and graduate levels, is required.

Curriculum vitae, statement of research and teaching interests (and background in each), graduate and undergraduate transcripts, lists and reprints of pub-lished works, and names and addresses of at least three references should be sent to:

Professor Robert Mandell, Chairman Search Committee (Corneal Physiology) School of Optometry University of California Berkeley, Calif. 94720

Applications will be accepted until 15 November 1985.

The University of California is an Equal Opportuni-ty/Affirmative Action Employer.

# FACULTY POSITION IN HUMAN AND CLINICAL NUTRITION

The Department of Nutritional Sciences, Univer-sity of California, Berkeley, has a tenure-track open-ing at the assistant professor level for teaching and research. Applicants must hold a Ph.D. degree or equivalent in nutrition or a related field and be a registered dictitian or meet eligibility requirements. Preference will be given to applicants with interest and ability to initiate a strong research program in human and clinical nutrition; experience in dietetics education programs is highly desirable. Applications with biography, transcripts, research interests, re-prints of publications, and names of three to five references should be sent to: Dietetics Search Com-mittee, Department of Nutritional Sciences, Universi-ty of California, Berkeley, Calif. 94720. Applications should be received before 1 December for this 1 July 1986 opening.

The University of California is an Equal Opportu-nity/Affirmative Action Employer.

FACULTY POSITION for D.V.M., Ph.D. in envi-ronmental toxicology is available in the College of Veterinary Medicine, Kansas State University. Closing date: 1 December 1985 or until filled. Con-tact: F. W. Oehme, D.V.M., Ph.D., Comparative Toxicology Laboratories, Kansas State University, Manhattan, Kans. 66506; telephone: 913-532-5679. Kansas State University is an Equal Opportunity/ Affirmative Action Employer.

FACULTY POSITION IN STRUCTURAL BIOLO-GY. There is an opening for a tenure-track faculty position in the structural biology group of the De-partment of Biological Sciences at Purdue Universipartment of Biological Sciences at Purdue Universi-ty. Background and accomplishments in one or more of the areas of integral membrane components, structural enzymology, and theoretical structural investigations would be considered particularly fa-vorably. The present laboratories have a wide varie-ty of x-ray equipment and computing facilities in-cluding a Cyber 205 supercomputer, a VAX 750, an Evans and Sutherland PS300, and Lexidata raster graphics. Appointments will be made at whatever level is appropriate for the most suitable candidate. Applications, including curriculum vitae, statement of research interests and plans. and three letters of Applications, including current vitac, statement of research interests and plans, and three letters of reference, should be sent to: Structural Biology Search Committee Chairman, Department of Biologi-cal Sciences, Purdue University, West Lafayette, Indi-ana 47907, by 1 December 1985.

An Equal Opportunity/Affirmative Action Employer

MEMBRANE MOLECULAR BIOLOGIST, research associate to work on genetic control of membrane morphogenesis. Ph.D. to clone genes for stimulation of membrane morphogenesis, sequence DNA, bio-chemically analyze membrane products, site-specif-ic mutagenesis. Salary range: \$16,500 to \$18,000 per year. Submit curriculum vitae, three references, and present and future research interests to: Dr. Gregory J. Brewer, Department of Medical Microbiology and Immunology, Southern Illinois University School of Medicine, P.O. Box 3926, Springfield, Ill. 62708. Affirmative Action/Equal Opportunity Employer.

SCIENCE, VOL. 230

## DIRECTOR OF MEDICAL COMPUTING RESOURCES CENTER

Director of Medical Computing Resources Center reports to VP for Academic Services. Master's level or higher in computer science or related; 5 years' experience, at least 2 years' management. Duties include: management of personnel, hardware resources, facility and statistical/computing consultation and education to meet the scientific and academic computing requirements of faculty, fellows and students. CV with 3 references to: Ronald F. Garvey, M.D., Department of Surgery, University of **Texas Health Science Center at** Dallas, 5323 Harry Hines Blvd., Dallas, Texas 75235. The UTHSCD is an equal opportunity employer.

# BIOCHEMIST

The Upjohn Cardiovascular Research Unit is seeking an Associate Scientist, with a B.S. and several years experience or an M.S., to study the roles of cation channels and pumps in cardiac and smooth muscle contraction and relaxation. Responsibilities will include isolation of membrane receptors and their characterization using rapid mixing kinetics spectroscopy and computer modeling. Other studies include the structure activity relationships of cardiovascular drugs and muscle regulation by protein kinases. Applicants with either of the following backgrounds will be considered.

- Biology, biochemistry or chemistry background with experience in membrane protein isolation and characterization and an interest in computer programming.
- 2) Biophysics, physics or physical chemistry background with expertise in spectroscopy and the use of computers. Electronics experience a plus. Excellent opportunity for a physical sciences major to do biological/pharmacological research and to interact with medical investigators.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a mix of excellent cultural, educational and recreational pursuits including numerous lakes and a four-season climate. Upjohn offers an excellent salary, commensurate with experience and an outstanding benefits program.

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 18030-A when calling.



## A century of caring

An Equal Employment Opportunity Employer M/F



# PLANT MOLECULAR GENETICS

#### Yale University Department of Biology

Yale University Department of Biology invites applications for an Assistant Professor to join in a growing departmental effort in Plant Molecular Biology. The successful applicant is expected to develop a strong research program and to participate in undergraduate and graduate teaching.

Send curriculum vitae, statement of current and proposed research and names of three references by November 15, 1985 to: Senior Administrative Assistant, Department of Biology, Room 902 KBT, Yale University, New Haven, CT 06511-8112. Yale University is an Equal Opportunity/ Affirmative Action Employer. **SENIOR BIOCHEMISTS** 

Established Biotechnology company in the Washington, D.C. area with leadership position seeks candidates for the following newly-created positions:

- Section Head, Enzyme Development: Responsible for the development of restriction and nucleic acid modifying enzymes, enzyme systems and new applications of enzymes. Requires a highly motivated Ph.D.-level Biochemist with at least three years post-doctoral or industrial experience in modern methods of enzyme purification and characterization. Supervisory skills are essential to direct groups of Ph.D. and M.S. level scientists.
- Section Head, Biological Chemistry Product Development: Responsible for the development of innovative research products in the area of protein and nucleic acid chemistry (including non-radioactive DNA detection) and for continuous evaluation and improvement of our existing product lines in molecular biology. A creative, self-motivated scientist with several years post-doctoral training or industrial experience is sought for this position. Supervisory experience is required.

If you are a Senior Scientist interested in an industrial challenge, we invite your inquiry. Please send resume to:

Mr. Wayne E. Fowler GIBCO/BRL Division Life Technologies, Inc. Box 6009, 8717 Grovemont Circle Gaithersburg, MD 20877

An equal opportunity employer, M/F/H.

#### **IMAGING SCIENTIST**

Faculty position for imaging scientist to do research and teach in new Biomedical Imaging Division. Individual desired whose area of interest would complement those of existing members of an active and growing biomedical imaging group composed of basic scientists and clinicians. Possible areas of interest of applicant: artificial intelligence; hardware design and development for image acquisition, anal-ysis or display; development of mathematical methysis or display; development of mathematical meth-ods for image processing and analysis. Modern image processing facilities available to the candi-date. Joint appointment at nearby engineering school also possible. Rank and salary are negotiable, depending on background and experience of appli-cant. To apply, send by 1 November 1985, curricu-lum vitae and names of three references to: Dr. Fredric S. Fay, Director, Biomedical Imaging Group, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester, Mass. 01605.

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

#### IMMUNOLOGIST

IMMUNOLOGIST Medical School Department of Microbiology seeks candidates for assistant/associate professorship (ten-ure-track). Starting date: approximately 1 July 1986. Experience in cellular and molecular immunology is desirable. Responsibilities include team-teaching in medical and graduate courses and development of an independent research program. Ph.D., M.D., or equivalent professional degree plus postdoctoral re-search experience required. Salary commensurate with training and experience. Submit curriculum vitae and bibliography, names of three professional references, description of research interests, and major publications to: Randall K. Holmes, M.D., Ph.D., Professor and Chairman, Department of Mi-crobiology, c/o Personnel Division, Uniformed Serv-ices University of the Health Sciences, 4301 Jones ices University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Md. 20814-4799. Curriculum vitae will not be returned. Equal Opportunity/Affir-mative Action Employer.

MARINE GEOCHEMIST—The Marine Sciences Research Center of the State University of New York (SUNY) at Stony Brook is seeking a marine geochemist, preferably with interests in organic geochemistry. Appointment to tenure-track position will be made at the assistant or associate professor will be made at the assistant or associate professor level and the position will be available September 1986. Successful applicant will be expected to devel-op an active research program and to teach. Interest-ed applicants must send résumé and have three letters of recommendation sent by 15 November 1985 to: Dr. Kirk Cochran, Marine Sciences Research Center, (SUNY) Stony Brook, Stony Brook, N.Y. 11794-5000. SUNY-Stony Brook, stony Brook, N.Y. Action/Equal Opportunity Educator and Employer. AK Number 268A-85.

#### MEMBRANE TRANSPORT

Postdoctoral and advanced research assistant positions are available immediately for individuals in-terested in pursuing studies on the structure and mechanism of ion-translocating ATPases. The ATPase in the plasma membrane of *Neurospora* is an electrogenic proton pump that operates via a phosphoryl-enzyme intermediate identical to those phosphoryl-enzyme intermediate identical to those of the animal cell transport ATPases. Research will involve investigation of the biochemistry and molec-ular biology of this ATPase with the goal of elucidat-ing its molecular mechanism. Salaries are commen-surate with experience. Send curriculum vitae and names of three references to: Dr. Gene A. Scarbor-ough, Department of Pharmacology, School of Medi-cine, University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27514. Equal Opportunity Employ-er

#### NEUROPSYCHOLOGY RESEARCH ASSISTANT

Research assistant available immediately in neuropsychological studies of Alzheimer's disease and related disorders. Applicant should have at least an M.A. in psychology. Background should include psychological testing, neurosciences, and clinical research. Send curriculum vitae and two letters of reference to: Mary Lammi, Technical Recruiter,

University of Massachusetts Medical Center 55 Lake Avenue North Worcester, Mass. 01605

An Affirmative Action/Equal Opportunity Employer

#### **POSITIONS OPEN**

TWO POSITIONS IN IMMUNOLOGY. Department of Medical Microbiology and Immunology, Ohio State University Medical Center, is seeking two highly qualified applicants to fill tenure-track positions beginning 1 July 1986. One position will be for a molecular immunologist, at assistant or asso-ciate professor level, depending upon qualifications. The second position will be for a cellular immunolo-gist/tumor immunologist, at assistant professor lev-el

Applicants should hold M.D. or Ph.D. degree and at least 2 years of postdoctoral experience, and have a strong record of scholarly achievement. Responsia should be scholarly active research pro-gram in their area of specialization, and participation in graduate and medical teaching programs. Submit curriculum vitae, including reprints, an outline of research interests, and three letters of reference, to: Ronald Glaser, Ph.D., Professor and Chairman, De-partment of Medical Microbiology and Immunology, The Ohio State University, 333 West 10 Avenue, Columbus, Ohio 43210.

Ohio State University is an Equal Opportunity Employer.

## MACROPALEONTOLOGIST— STRATIGRAPHER—SEDIMENTOLOGIST

The Earth Sciences and Resources Institute of the University of South Carolina solicits applications for a position as research associate to be filled immediately. The successful applicant should hold a Ph.D and 1 year of experience; demonstrate a thorough knowledge of Late Cretaceous ammonites from the Southern Hemisphere, extensive field experience in the Cretaceous stratigraphy of South America and Antarctica, as well as his/her ability to generate new Antarctica, as well as his/her ability to generate new research projects. Proficiency in Spanish necessary due to location of research area. The salary for this position is \$23,700 annually. Please send letter of application, transcripts, résumé, copies of publica-tions, and three letters of recommendation to: Vicky Fagg, Job Service, P.O. Box 567, 700 Taylor Street, Columbia, S.C. 29202.

The University of South Carolina is an Equal Opportunity/Affirmative Action Employer, and an Educational Institution.

#### MEMBRANE BIOLOGIST

tenure-track assistant professorship is open to qualified individuals whose research interests are in the areas of cell membrane function and/or biogene-sis. The successful candidate will be expected to establish a strong research program and to partici-pate in a modest amount of teaching in the underproduct and graduate programs in cell biology. Postdoctoral experience is required. Applicants should send, by 1 December 1985, a résumé, a statement of research objectives, and the names and addresses of at least three referees to: Membrane Biology Search Committee, T. H. Morgan School of Biological Sciences, University of Kentucky, Lexing-ton, Kentucky 40506.

An Equal Opportunity/Affirmative Action Employer

MOLECULAR BIOLOGIST, with major interest in MOLECULAR BIOLOGIST, with major interest in cancer, to establish and lead a research group. Selection will be based upon research experience (at least 3 years beyond postdoctoral training), proven ability to develop an independent research program as evidenced by grant support, and the willingness to interact with established programs. Core support for the program will be provided by a substantial en-dowment. Submit curriculum vitae and summary of thus research places by 1 December 1095 to December 1095 to December 1095 to 1000 to 10000 to 1000 to 10000 to 1000 to 1000 to 1000 to 1000 to 1000 to 10 Gloria Heppner, Michigan Cancer Foundation, 110 East Warren, Detroit, Michigan 48201. Affirmative Action/Equal Opportunity Employer.

Please contact Charles M. King, Ph.D., for further information.

PHARMACOLOGY FACULTY. A tenure-track po-sition in the Department of Pharmacology and Inter-disciplinary Toxicology will be available in 1986. Applicants with research interests in cardiovascular pharmacology, neuropharmacology, or immuno-pharmacology are preferred, but applicants with other interests will be considered. The level of appointment will depend on the applicant's qualifi-cations. First consideration will be given to senior scientists with a well-established record of produc-tivity. Applicants should submit their credentials to: scientists with a weil-established record of plotuc-tivity. Applicants should submit their credentials to: Dr. Donald E. McMillan, Department of Pharmacolo-gy and Interdisciplinary Toxicology, College of Medi-cine, University of Arkansas for Medical Sciences, 4301 West Markham Street, Little Rock, Ark. 72205.

An Equal Opportunity Employer

#### **POSITIONS OPEN**

MICROBIOLOGY/IMMUNOLOGY-Two tenure-MICROBIOLOGY/IMMUNOLOGY—Two tenure-track positions at assistant professor level at the Medical College of Pennsylvania. Advanced status possible. Teaching responsibilities: team-taught medical microbiology and immunology and graduate courses. Selection based on: research and teaching experience, ability to develop and sustain an inde-pendent research program with national grant sup-port, willingness to collaborate with other faculty. Research areas of interest: molecular aspects of microbial and viral pathogenesis; eukaryotic or pro-karyotic membrane/receptor biochemistry; molecu-lar and developmental biology of cells especially of macrophaees and NK cells; neuropsychoimmunololar and developmental biology of cells especially of macrophages and NK cells; neuropsychoimmunolo-gy. Send curriculum vitae, data statement of future research plans, copy of three publications, and three letters of recommendation by 1 November 1985 to: Microbiology and Immunology, MEDICAL COLLEGE OF PENNSYLVANIA, 3300 Henry Avenue, Philadel-phia, Pennsylvania 19129. Equal Opportunity Em-ployer, M/F.

MOLECULAR BIOLOGIST—Merck Sharp and. Dohme Research Laboratories is currently seeking a molecular biologist to join the Biochemistry and Molecular Biology Department. The selected candi-date will be expected to conduct and supervise a multidisciplinary program dealing with the molecu-lar cloning and expression of a variety of immuno-logically important eukaryotic proteins. Require-ments for this position include a Ph.D. in the biologi-cal sciences or the equivalent with 3 years of post-doctoral experience. Candidates should possess skills in cDNA and genomic DNA cloning, DNA sequencing, and the construction and use of eukary-otic and prokaryotic expression vectors. Individuals should be highly motivated and possess demonstratshould be highly motivated and possess demonstrat-ed communication skills. Salaries, benefits, and growth potential are excellent. Our location is in Rahway, New Jersey, 20 miles from New York City. Interested candidates should submit their curricu-Intersted candidates should submit their curricu-lum vitae and salary requirements with the names and addresses of three references to: Luis F. Balles-ter, Merck & Co., Inc., P.O. Box 2000, Rahway, N.J. 07065. An Equal Opportunity Employer, M/F.

The Department of Pathology of the Wayne State University School of Medicine is seeking to recruit a **MOLECULAR BIOLOGIST** (M.D. and/or Ph.D.) at the assistant or associate professor level. The individual should have demonstrated teaching abilities and research skills in the area of hypertension. Interested individuals should contact: Joseph Wie-ner, M.D., Professor and Chairman, Department of Pathology, Wayne State University School of Medi-cine, 540 East Canfield, Detroit, Michigan 48201. Wayne State University is an Affirmative Action/ Equal Opportunity Employer.

PHYSICAL ANTHROPOLOGIST (assistant professor). Ph.D. required. Broadly trained in subfields of anthropology. Must be actively involved in fundable research. Experience and ability in teaching large introductory-level courses are critical. Research specialty is open but must include a laboratory component. Tenure-track appointment starting 1 July 1986. Send curriculum vitae, statement outlin-July 1960. Settle currection Vitac, statement outmining present and future research goals and teaching interests, and names of three references by 1 February 1986 to: Horst D. Steklis, Chair, Department of Anthropology, Rutgers University, Douglass Campus, New Brunswick, New Jersey 08903.

#### PHYSIOLOGICAL PLANT ECOLOGIST

Assistant or associate professor. The Department of Plant Biology, University of Illinois at Urbana-Champaign, invites applications for a tenure-track position beginning 21 August 1986. Responsibilities include contributing to undergraduate and graduate include contributing to undergraduate and graduate teaching, supervising graduate students, and con-ducting a vigorous research program. A Ph.D. de-gree with emphasis in plant ecology is required. Extensive research experience with physiological approaches to understanding plant population or community dynamics is preferred. Salary negotia-ble. To ensure full consideration, applications should be received by 1 December 1985. Send curriculum vitae, summary of research interests, and three letters of reference to: Dr. Paul G. Risser, Department of Plant Biology, University of Illinois, 505 South Goodwin, Urbana, Illinois 61801. Tele-phone: 217-333-6830.

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

## RESEARCH ASSOCIATE LABORATORY OF IMMUNOLOGY NATIONAL INSTITUTES OF ALLERGY & INFECTIOUS DISEASES NATIONAL INSTITUTES OF HEALTH

#### **Description of Duties**

Position available immediately for qualified scientist to assist in transgenic mouse facility in the Laboratory of Immunology. Studies are currently in progress to study the expression and regulation of a number of normal and mutant genes that play critical roles in the immune response.

#### Qualification

Ph.D. or M.D. applicants with experience in embryo injection and transplantation are preferred, but others with similar qualifications will be considered.

The Lab. of Immunology offers a unique environment where modern cellular and molecular methods are being applied to a variety of fundamental problems in immunology.

Qualified and interested candidates should send curriculum vitae and names and addresses of three (3) references to:

William E. Paul, M.D. Chief, Lab. of Immunology NIAID, NIH Bldg. 10, Rm. 11N311 Bethesda, MD. 20892

NIH is an Equal Opportunity Employer

# SENIOR IMMUNOLOGIST

(Cytokines—Immune Regulation)

THE LILLY RESEARCH LABORATORIES, a division of Eli Lilly and Company, is seeking candidates for a Senior Scientist position in the area of cytokine research and immune regulation.

Applicants must have a doctoral degree with significant postdoctoral training. *In vitro* and *in vivo* experience in immune regulation and cytokine action on T and/or B cells is desirable. The Senior Scientist will establish his/her own laboratory in a new state-of-the-art research facility located at our Corporate Center. The Senior Scientist will join a group of scientists developing drugs that modulate immune related disease conditions.

Qualified candidates should send their curriculum vitae to:

# Lilly

John W. Crooks, Manager College Relations (SI) Eli Lilly and Company Lilly Corporate Center Indianapolis, Indiana 46285

An Equal Opportunity Employer M/I

# Associate Director for High Energy and Nuclear Physics Programs BROOKHAVEN NATIONAL LABORATORY

Brookhaven National Laboratory (BNL) is seeking an Associate Director for High Energy and Nuclear Physics Programs. The primary responsibility of the position is for the physics research program carried out at the Alternating Gradient Synchrotron (AGS) in both high energy physics and in the new relativistic heavy ion program. The position also carries line responsibility in the Director's Office for all programs in the BNL Physics Department, including experiments conducted at BNL and at other facilities. The Associate Director for High Energy and Nuclear Physics Programs may also take on oversight responsibility for other programmatic efforts at the Laboratory depending upon background and interests, and as a member of the Laboratory Directorate will be expected to play an important role in making the management and policy decisions which guide the entire Laboratory.

BROOKHAVEN NATIONAL LABORATORY ASSOCIATED UNIVERSITIES INC The Laboratory is now at an exciting stage, with several new and important research programs emerging that hold great promise. We are looking for a first-rate scientist and able leader with managerial strengths who will be equal to the challenge of the diverse responsibilities, and of speaking for the Laboratory on a wide range of issues.

Brookhaven National Laboratory is a multi-program laboratory managed by Associated Universities, Inc., under contract with the U.S. Department of Energy.

Applications and nominations should be sent, by December 10, 1985 to: T.L. Trueman, Chairman, Search Committee, Brookhaven National Laboratory, Associated Universities, Inc., Upton, NY 11973

Equal Opportunity Employer. M/F.

#### DEPARTMENT OF AGRICULTURE (USDA) AGRICULTURAL RESEARCH SERVICE (ARS)

SUPERVISORY PLANT PHYSIOLOGIST, GM-435-13/14/15, Southern Regional Research Center, New Orleans, Louisiana. ARS is seeking a research leader in plant growth regulation research. Applications are invited for a position leading a group of chemists and plant physiologists in research on various aspects of plant growth and development. Current research areas include: (i) the effects of plant growth regulators on enzymes and flavor determinants in peanuts, (ii) the effects of heat and drought stress on the chemical composition of crop plants, (iii) the biochemical and molecular basis for regulated cotton seed and fiber growth and development, and (iv) a study to reduce oilseed deterioration during weathering and storage. Specific research objectives of the research leader will be involved in studying the mode of action of plant growth regulators on peanuts. Ph.D. desirable. Extensive research experience and demonstrated administrative experience are also desirable. Salary is commensurate with experience, GM-13/14/15 (\$37,590 to \$\$2,262).

PLANT PHYSIOLOGIST. Southern Regional Research Center, New Orleans, Louisiana. ARS is seeking a scientist to lead a multidisciplinary team studying the biosynthetic pathways involved in cotton seed and fiber development, characterizing specific genes critical to seed and fiber quality, and regenerating cotton plants and fiber from tissue culture. Research experience on the physiology and genetics of cotton seed, fiber and embryo development, and novel methods for crop improvement are essential qualifications. Ph.D. is desirable in plant physiology, biochemistry, or genetics and experience with leading a research group. Salary is commensurate with experience, GS-13/14 (\$37,599 to \$44,430). For information on the research program and/or both positions, contact: E. J. Congerton, telephone: 504-589-7075. For information on applications procedures/forms, contact: J. K. Lynch, telephone: 301-344-1508. Applications must be postmarked by 30 November 1985. Mailing address: USDA, ARS, Personnel Operations Branch, Southern Section-S03, Building 417, BARC-E, Beltsville, Md. 20705.

An Equal Opportunity Employer

#### AUSTRALIA

#### THE UNIVERSITY OF WOLLONGONG

Equality of employment opportunity is university policy. Applications are invited for the following position. The university reserves the right to fill any advertised position by invitation.

#### PROFESSOR OF BIOLOGY

Applicants should be outstanding scholars in any field of biology and should have a broad perspective of biological systems. Appointment as chairperson of department may also be offered.

The successful applicant will be required to provide academic leadership by taking an active part in both teaching and research and will have a particular responsibility for fostering the research program. Subject to the consent of the University Council, professors may undertake a limited amount of higher consultative work. Fares to Wollongong for the appointee and dependents are paid and a relocation allowance is payable. Salary is A\$54,948 per annum.

Applications should contain details of qualifications, employment history, research interests, publications list, and the names and addresses of three referees and should be forwarded to: The University Secretary, The University of Wollongong, P.O. Box 1144, Wollongong, New South Wales, 2500, Australia. Please mark envelope "Confidential-Appointment." Further information is available from: R. M. Walker, Academic Appointments Officer, telephone: 042-270934. Applications close 1 December 1985.

#### POSITIONS OPEN

#### NEUROPHYSIOLOGIST

A tenure-track position is available for an individual with primary interests in the biophysical properties of ionic channels in nerve and endocrine cells. In addition to at least 3 years of postdoctoral experience in research, the successful candidate will have demonstrated expertise in: (i) voltage clamping an axonal preparation such as squid or crayfish giant axons, and (ii) single channel and whole cell current recording with the patch clamp technique. Experience in computer interface design for signal generation and data acquisition, computer programming, design of analog electronic circuits, statistical data analysis, and tissue culturing techniques is desirable. The applicant is expected to have a comprehensive research plan and be able to generate external funding. Applications should include curriculum vitae, a statement of future research plans, the names of three references, and be mailed to:

Peter Dolhancryk Business Administrator Division of Neurosurgery Hospital of University of Pennsylvania 3400 Spruce Street Philadelphia, Pa. 19104

Equal Opportunity/Affirmative Action Employer

ORGANIC CHEMIST—WILLIAMS COLLEGE will have an opening for a tenure-track position in organic chemistry (Ph.D. required, postdoctoral experience preferred) in fall 1986. While an appointment at the entry level is anticipated, a higher level appointment commensurate with a candidate's experience and qualifications will be considered. Applications from persons in any of the subfields within organic chemistry are invited. Applicants must have a strong commitment to both teaching and research. Teaching duties normally include complete responsibility for one course with laboratories each semester, selected from two semesters of introductory organic chemistry, two of advanced organic chemistry, and survey courses for nonmajors. Supervision of undergraduate research is expected. Williams College is a highly selective, coeducational, liberal arts institution of approximately 155 faculty and 1900 undergraduates, located in northwestern Massachusetts. The nine-person Chemistry Department is accredited by the ACS and has excellent facilities for teaching and research. Send résumé, description of research interests for undergraduates, transcripts, and names of three references to: Dr. James F. Skinner, Chairman, Department of Chemistry, Williams College. Williamstown, Mass. 01267, by 15 November 1985. Affirmative Action/Equal Opportunity Employer. We are especially eager to identify minority and women candidates.

PHYSIOLOGIST. Faculty—State University of New York at Buffalo, School of Nursing, for fall 1986. Full-time assistant professor, tenure-track position. Teaching undergraduate and graduate nursing students. Ph.D. in physiology. Prior teaching and research experience preferred. Research-oriented university. Send curriculum vitae to: Dr. Bonnie Bullough, Dean, School of Nursing, 1010 Stockton Kimball Tower, Buffalo, New York 14214. The State University of New York at Buffalo is an Affirmative Action/Equal Opportunity Employer.

#### POLYMER SCIENCE—Senior Chemist

Conduct research involving synthesis and characterization of emulsion polymers, formulations for autophoretic coatings. Ph.D. in polymer science or completion of requirements. Strong background in synthesis and characterization of emulsion polymers, carbon-13 NMR spectroscopy, and surface characterization of latexes, \$33,000 per year. Send résumé to: Philadelphia Job Bank, 444 North Third Street, Philadelphia, Pa. 19123. Refer to Order Number 4074301.

POSTDOCTORAL IN IMMUNOLOGY—Two years of NSF grant support available immediately for study of lymphocyte membrane molecules functioning in cell adhesion, and mechanism of T lymphocyte-mediated killing of virus infected cells, including effects on the viral genome and virion. Background in membrane chemistry helpful, in immunology unnecessary. Capacity for independent analysis and experimental design prized. Live in five-college community in the scenic foothills of the Berkshire Mountains. Send curriculum vitae and three letters of reference by 30 November 1985 to: Dr. Eric Martz, Department of Microbiology/Program in Molecular and Cell Biology. University of Massachusetts, Amherst, Mass. 01003. Affirmative Action/Equal Opportunity Employer.

#### POSITIONS OPEN

#### PALEONTOLOGY CURATOR MILWAUKEE PUBLIC MUSEUM MILWAUKEE, WISCONSIN

The Geology Section is searching for a field-oriented paleontologist. Candidate may be specialized in vertebrate or invertebrate paleontology or paleobotany. Sound publication record and clear indication of ability to generate grant funds required. Curator will be expected to maintain strong research program and be in charge of major segment of geology collections. Close relationship exists between museum and Geological Sciences, University of Wisconsin-Milwaukee, and curators have been thesis advisors to graduate students. Requires possession of doctoral degree with primary emphasis in fieldoriented paleontology and experience in handling, describing, analyzing, and researching fossil specimens with emphasis on sedimentary environments, preferably in a museum. Annual salary range: \$21,921 to \$25,304. Promotional program to curator IV (geology) available after 2 years of experience and recommendation. Highly competitive benefits paid by the county. Application materials may be obtained from: Milwaukee County Department of Human Resources, Courthouse Room 210, 901 North 9 Street, Milwaukee, Wis. 53233.

PHYSIOLOGIST. The Department of Poultry Science, College of Agricultural Sciences, Clemson University, announces a national search for a physiologist. This is a full-time, tenure-track appointment at the instructor/assistant professor level. Candidates for the position should be interested in joining a team of poultry science faculty conducting research in reproductive and stress physiology. Opportunities exist for collaboration with other faculty having programs in poultry nutrition, products, and pathology. Doctoral degree required; expertise in endocrinology and/or immunology is desirable. Applicants should submit curriculum vitae and a letter describing teaching and research interests, and reguest three letters of reference, all to be sent to: Dr. D. V. Maurice, Chairman-Search Committee, Department of Poultry Science, Clemson University, Clemson, S.C. 29634–0379. The closing date for applications is 1 November 1985.

Clemson University is an Equal Opportunity/Affirmative Action Employer.

#### PLANT CELLULAR GENETICIST

The Department of Agronomy, University of Kentucky, is seeking a full or associate professor for a tenure-track position. Outstanding applicants at the assistant level will also be considered. Appointee will be expected to conduct a nationally recognized program of research and graduate training focused on the development and utilization of tissue and cell culture techniques in the genetic manipulation and improvement of agronomic crop species. We are seeking an individual desiring to develop strong collaborations with both molecular biologists and plant breeders. Applications will be accepted until 15 November 1985 or until a suitable applicant is found. Salary commensurate with experience. Send biographical data, transcripts, a statement of research goals, and the names of three references to: Dr. A. J. Hiatt, Chairman, Department of Agronomy, University of Kentucky Lexington, Ky. 40546–0091. The University of Kentucky is an Equal Opportunity/ Affirmative Action Employer.

**POSTDOCTORAL** — BIOPHYSICAL — BIOINOR-GANIC. Ph.D. with biochemical or biophysical training and interest in metal ion-protein interactions. Application of new laser spectroscopic methods and lanthanide ion luminescence to probe calcium-binding proteins and nucleic acids [see Accts. Chem. Res. 14 384 (1981)]. Send curriculum vitae and letters of recommendation to: Professor William DeW. Horrocks, Jr., 152 Davey Laboratory, Department of Chemistry, The Pennsylvania State University, University Park, Pa. 16802. Affirmative Action/ Equal Opportunity Employer.

**POSTDOCTORAL POSITIONS** available immediately to study the role of the extracellular matrix in oncogenic transformation. Experience in biochemistry/cell biology/molecular biology preferred. Expertise in protein purification/characterization or production of monoclonal antibodies desirable. Send curriculum vitae and three letters of recommendation to: Dr. Susan P. Hawkes, Department of Pharmaceutical Chemistry, S-926, University of California, San Francisco, Calif. 94143. Equal Opportunity/ Affirmative Action Employer.

# Results Take Time. But The Rewards Last Forever.

It takes years to develop a new pharmaceutical product. But when you do, you've had an impact on the quality of life for generations to come. Syntex is today's premier pharmaceutical research company, with over four decades of industry leadership behind us. Make your career part of something great. Join Syntex in one of these immediate openings:

#### **Research Toxicologist**

Responsible for implementing, monitoring and reporting preclinical toxicology studies. These studies will be used to support national and international regulatory findings for new drug registrations. Strict adherence to established SOP's and GLP's is required. You should possess a PhD in Toxicology or related discipline and 2-5 years or more of industrial toxicology experience in a pharmaceutical or contract firm. Familiarity with regulatory requirements, good interpersonal and communication skills and the ability to work in a team structure are essential. (Dept. JB)

#### **Staff Researcher**

Responsible for carrying out a research program involving cellular and biochemical effects of polypeptide hormones encompassing receptor binding and mechanism of action studies. Requires a strong background in Biochemistry and Cell Biology, 2-5 years of experience and a PhD or MD. Familiarity with membrane receptor and protein biochemistry, cell biology and immunology is desirable. (Dept. PS)

#### Staff Research Associate

Responsible for directing and contributing to basic studies identifying genes and gene products specific to DNA and RNA viruses in Syntex's Department of Antimicrobial Research. In addition, mechanism of action studies will be conducted to determine the function of these products and their importance to virus survival. You will also participate in setting research objectives, planning department budgets and will be expected to successfully interact with other research disciplines involved in the antiviral program. You should possess a PhD in Molecular Biology or related discipline and graduate and/or postdoctoral research experience in Virology. The ability to work in a team environment and demonstrated supervisory skills are also essential. (Dept. JB)

### **Postdoctoral Fellow**

Join a growing research program studying molecular and cellular events in malignancy. Requires a strong background in Biochemistry and Cell Biology, 0-2 years of experience and a PhD or MD. Unique opportunities exist for utilization of novel inhibitors to probe specific biochemical mechanisms involved in invasion and metastasis. Vigorous interaction with other research groups, both within Syntex as well as in the scientific community including publication, is highly encouraged. (Dept. PS)

To apply, send your resume and salary history, indicating department code of interest, to Syntex, Professional Employment, 3401 Hillview Avenue, Palo Alto, CA 94304. Principals only, please. We are an equal opportunity employer.



SYNTEX

#### PLANT MOLECULAR BIOLOGIST

Applications are requested for the position of assistant research biologist, Step 1, under the supervision of Dr. Robert B. Goldberg in the Biology Department at University of California, Los Angeles (UCLA). The successful applicant must have a Ph.D. and at least 4 years of postdoctoral experience. Three of these years must be at the assistant professor level. The applicant must have extensive experience in the molecular biology and genetics of obtaining outside funding for their research program. Botanical background, as well as expertise with higher plant nucleic acids, all aspects of recombinant DNA technology, transformation and growth of plant cells in culture, electron microscopy, DNA/ DNA and RNA/DNA solution hybridization analysis, DNA sequencing, cDNA cloning of higher plant mRNAs, cloning and screening of plant genomes, and analysis and cytolocalization of plant proteins required. Position entails directing an independent research program. Salary is \$30,000 per year, plus benefits. Send curriculum vitae, reprints of publications, and three letters of recommendation by 1 November 1985 to:

#### Dr. Robert B. Goldberg Department of Biology University of California Los Angeles, Calif. 90024

UCLA is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOW. M.D. or Ph.D. Atherogenesis research involving the role of the central nervous system. Biochemically oriented multidisciplinary project. Experience with cell culture desirable. Available immediately, for 2 years. Wm. H. Gutstein, M.D., Department of Pathology, New York Medical College, Valhalla, N.Y. 10595. New York Medical College is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP. Available immediately. Individual with a recent Ph.D. in toxicology, biochemistry, or related area is sought to participate in research related to the effect of mycotoxins and other environmental agents on the synthesis and function of prostaglandins and certain neurotransmitters in fetal mouse palate. The individual will also participate in studies investigating beneficial interactions of certain metals with other toxic heavy metals and the role of metallothioneins in such interactions. Working knowledge of HPLC and atomic absorption spectrophotometry is desirable. Salary: \$14,500 to \$18,000. Renewal for second year is possible based on performance. Interested individuals should send résumé and names of three references to: Dr. C. S. Reddy, Department of Veterinary Biomedical Sciences, University of Missouri, Columbia, Mo. 65211.

POSTDOCTORAL POSITION available in behavioral neuroscience in a joint research program directed by Dr. R. Moore and Dr. L. Morin. The program is directed to an analysis of neural mechanisms of generation/regulation of behavioral rhythms with particular emphasis on investigation of hypothalamic organization and function. Research includes behavioral and morphologic studies employing immunocytochemical, ultrastructural, and tract training methods. Salary range: \$15,000 to \$16,000 per annum. Send curriculum vitae and references to: Dr. Morin, Department of Psychiatry, HSC T-10, State University of New York (SUNY) at Stony Brook, Stony Brook, N.Y. 11794-8101. SUNY, Stony Brook, is an Affirmative Action/Equal Opportunity Educator and Employer. AK Number 251-85.

#### POSTDOCTORAL POSITION

Available immediately for research on the molecular basis of Paramyxovirus gene expression, pathogenesis, and immunity. Applicants will have an opportunity to gain conceptual and technical experience in molecular biology, monoclonal antibody production, synthesis of peptides and sequencing of proteins, and nucleic acids. Stipends start at \$20,000 per year, plus fringe benefits. Send curriculum vitae and the names of three references to: Dr. Allen Portner, Department of Virology and Molecular Biology, St. Jude Children's Research Hospital, P.O. Box 318, Memphis, Tennessee 38101.

An Equal Opportunity/Affirmative Action Employer

#### **POSITIONS OPEN**

#### POSTDOCTORAL MOLECULAR BIOLOGISTS

Grant-supported research positions administered through a non-profit corporation are available in two areas of molecular biology:

Studies on the molecular genetics or poxviruses are being conducted in the laboratory of Dr. Enzo Paoletti. Poxviruses are being refined as eukaryotic cloning and expression vectors for the production of biologically active molecules and live recombinant vaccines [*PNAS* 81, 193 (1984); *Science* 229, 981 (1985)].

ence 229, 981 (1983)]. RNA splicing in *Escherichia coli* is being investigated in the laboratory of Dr. Marlene Belfort. Molecular genetic approaches are being used to elucidate RNA processing pathways and to investigate the regulation of expression of a split gene. [*PNAS* 81, 3049 (1985)].

Experiments are being conducted in a well-equipped, active research facility. Salaries are competitive and commensurate with experience.

Send curriculum vitae and three references to the appropriate investigator at the following address:

Wadsworth Center for Laboratories and Research New York State Department of Health Empire State Plaza Albany, New York 12201

POSTDOCTORAL POSITIONS IN HUMAN IM-MUNOLOGY. Applications may be submitted for a 2- to 3-year program beginning 1 January and 1 July 1986. Original research in immunology with clinical materials using cellular, humoral, and molecular biological techniques are central to the program. Broad training is provided in immune mechanisms, disease diagnosis, treatment evaluation, and application of immunologic tests in the assessment of immune dysfunction. Trainees who complete the program will qualify for boards in medical laboratory immunology. Individuals with a Ph.D. or M.D. degree, strong commitment to an academic career, prior education and experience in immunology, and communication skills are desired. Inquiries should be addressed to: Dr. John L. Fahey, Center for Interdisciplinary Research in Immunology and Disease, c/o Department of Microbiology and Immunolgy, University of California at Los Angeles (UCLA) School of Medicine, Los Angeles, Calif. 90024. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available December 1985 for study of membrane protein of sickled red cells. Applicants should have strong background in biochemistry, including knowledge of protein purifications, cell biology, and immunologic techniques. Send curriculum vitae, publications, official transcripts, and three letters of recommendation to: Dr. Carol F. Whitfield, Department of Physiology, The Milton S. Hershey Medical Center, P.O. Box 850, Hershey, Pa. 17033. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION open (2 to 3 years) to study host-parasite relationship between *Treponema pallidum* and tissue culture cells. Research involves determining the role tissue culture cells play in the replication and growth of *T. pallidum* and what effect *T. pallidum* infection produces in tissue cultures. Ph.D. in microbiology required; background in bacterial physiology and/or pathogenesis desirable. Experience with tissue culture, radiolabeling, gel electrophoresis, and/or enzyme purification desirable. Salary: \$18,000 to \$21,000, depending upon experience. Send curriculum vitae and three letters of reference to: David M. Cox, Ph.D., Department of Microbiology and Immunology, Texas College of Osteopathic Medicine, Camp Bowie at Montgomery, Fort Worth, Tex. 76107. An Equal Opportunity/ Affirmative Action Employer.

POSTDOCTORAL POSITION IN MECHANISMS OF MUTAGENESIS. Project involves the construction of and mutagenesis studies with DNA vectors containing specific DNA adducts. Recombinant DNA, genetic, DNA chemical synthetic, and analytical (especially HPLC) techniques will be employed. Send curriculum vitae and three letters of recommendation to: Dr. Edward L. Loechler, Department of Biology, Boston University, Boston, Mass. 02215.

#### **POSITIONS OPEN**

POSTDOCTORAL POSITION in experimental cancer therapeutics to study human tumor cell attachment, growth, invasiveness, and drug sensitivity in vitro using an extracellular matrix system. Background in pharmacology, cell biology, and/or membrane biochemistry desirable. Send résumé to: Ralph J. Bernacki, Ph.D., Grace Cancer Drug Center, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, New York 14263. Equal Opportunity Employer.

THREE POSTDOCTORAL POSITIONS available immediately for studies of contrast agents for in vivo NMR for individuals with backgrounds in one or more of the following areas: (i) NMR spectroscopy, especially relaxation measurements; (ii) ESR spectroscopy, especially nitroxides and biological studies; and (iii) biochemistry, especially energy metabolism and redox reactions. Send résumé and names of three references to: H. Swartz, M.D., Ph.D., University of Illinois College of Medicine, 506 South Mathews Avenue, Urbana, Ill. 61801. Telephone: 217-333-3786.

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

POSTDOCTORAL POSITION available immediately to study the molecular biology of human cytomegalovirus. Experience in recombinant DNA methodologies and virology preferred. Send curriculum vitae and three letters of references to: Dr. Lenore Pereira, University of California San Francisco, School of Dentistry, HSW-604, San Francisco, Calif. 94143. An Equal Opportunity Employer.

#### POSTDOCTORAL POSITIONS GROWTH FACTOR GROUP

Available immediately, two postdoctoral research fellow positions in mammary/pituitary tumor cell growth factor biochemistry and cell biology. Studies include protein/peptide factor isolation and characterization, receptor mediated mechanisms, and monoclonal antibody generation. A strong background in protein isolation and biochemistry is required. Salary is \$20,000 per year. Send curriculum vitae and names of three references to: Dr. David A. Sirbasku, Department of Biochemistry and Molecular Biology, The University of Texas Medical School, P.O. Box 20708, Houston, Texas 77225. An Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION available during 1985-1986 in the Developmental Biology Center, University of California, Irvine, California 92717. Recent Ph.D. required, preferably in cell, molecular or developmental biology, neurobiology, or genetics. Positions are for research with Dr. Scott Fraser (patterning of neural development; cell communication through gap junctions); Dr. Peter Bryant (molecular genetics of growth control in *Drosophila*); Dr. Hans Bode (stem cell differentiation, pattern formation); or Dr. J. Lawrence Marsh (molecular genetics of pattern formation and gene expression in *Drosophila*). U.S. citizenship or permanent residency status required. For more information, contact the individuals above. To apply, submit résumé and description of research interests and experience, and have three letters of recommendation sent to: The Director, Developmental Biology Center (address above). Deadline for applications: 1 December 1985. *The University of California is an Equal Opportunity/Affirmative Action Employer*.

POSTDOCTORAL POSITION available immediately for 3 years to use monoclonal antibodies to study the transport proteins of plant mitochondria. Requires Ph.D. in biochemistry or plant physiology with research experience in transport reactions, membrane biochemistry, or immunology. Salary: \$17,000 per year. Send curriculum vitae and two reference letters to: Dr. David J. Oliver, Department of Biochemistry, University of Idaho, Moscow, Idaho 83843.

#### POSTDOCTORAL RESEARCH ASSOCIATE

Research associate, Ph.D. biochemistry. Experience in isolation of subcellular organelles, lipid extraction and gas chromatography of fatty acids, and lipid peroxidation. Familiarity with tissue culture desirable.

Dr. S. D. Varma University of Maryland at Baltimore School of Medicine Department of Ophthalmology 10 South Pine Street Baltimore, Maryland 21201 An Affirmative Action/Equal Opportunity Employer

SCIENCE, VOL. 230

## Palmer College of Chiropractic SEARCH REOPENED **CHALLENGING OPPORTUNITY TO DIRECT EXPANDING PROGRAM IN RESEARCH** AT PALMER COLLEGE OF CHIROPRACTIC

Palmer College of Chiropractic, the world's first and largest institution for chiropractic education, is seeking a Director of Research and Graduate Study who has exceptional ability to establish and develop a substantial new research program. The program should place the College in the forefront of research that is directly or indir relevant to chiropractic practice, including neurobiology, spinal biomechan ics, reflex neurophysiology as well as relevant biomedical disci

Responsibilities of the Director will include the development and implementation of plans for research growth, recruitment and direction of new research faculty and staff, development of a Ph.D. graduate study program with cooperating universities, overall management of the College budget for research and research training, supervision of current research and design and establishment of new laboratory facilities in existing space. The Director should also maintain support for personal research from extramural grants and assist faculty in obtaining such grants for their research

Substantial intramural financing of the program is available for facility improve ment, project initiation, grant sharing, and graduate fellowships. An administrative assistant or executive secretary, and laboratory research associate will be provided to assist the Director.

The Directorship is supported with a direct salary of approximately \$70,000. A generous fringe benefit package is also offered.

Applicants should currently be conducting research with substantial funding by a national agency such as NIH, and have a strong record of publication. (Experience and/or expertise with clinical research is preferred.)

An application should include a statement of personal qualifications for the position, curriculum vitae (including list of publications and research grants), reprints of representative publications and references. Send applications, nominations or make inquiries to: Mr. Laurie Tasseli, Chairman of Search Committee for Director of Research, Palmer College of Chiropractic, 1000 Brady Street, Davenport, Iowa 52803. 800-553-8058. Applications close November 18, 1985. Equal Opportunity Employer.

# Immunologist

American Cyanamid Company's Agricultural Research Division in Princeton, New Jersey has a vacancy for a Ph.D. Immunologist to support the vaccine program. Specific responsibilities are to generate, maintain and characterize hybridomas. to develop and evaluate in vitro systems regarding effects of antigens on lymphoid cells and to carry out in vivo immunity evaluations.

The successful candidate must have training in cel-Iular immunology. Postdoctoral experience is desirable.

The remuneration will be competitive, commensurate with applicant's experience.

Interested candidates are invited to submit a full curriculum vitae, a list of publications, and the names and addresses of three references to the Employment Office.

' CYANAMID

American Cyanamid Company Agricultural Research Division P.O. Box 400 Princeton, NJ 08540 An Equal Opportunity Employer m/f/h No Agencies Please

#### STATE UNIVERSITY OF NEW YORK AT BUFFALO

## **BIOLOGICAL SCIENCES FACULTY POSITIONS**

TWO ASSISTANT PROFESSORSHIPS: Our goal is to hire two persons whose research programs are in the forefront of their field and who can interact with each other as well as other members of our faculty. Effective September 1986 two tenure track Assistant Professorships will become available. Serious candidates will be expected to be utilizing modern genetic and molecular approaches to the study of one of the following areas: (a) the immune system at the cellular level, (b) the development of an organism which provides a model system for studies in development, or (c) regulation in an organism to provide a model for studies of regulation at the level of gene transcription.

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

All successful candidates will be expected to demonstrate above average teaching ability for both undergraduate and graduate teaching. Salarles will be nationally competitive; excellent laboratory space and equipment are available.

To apply, candidates must submit a curriculum vitae, including a statement of research background, and teaching experience, and at least three letters of reference to: Dr. Darrell Doyle, Chairman, Department of Biological Sciences, 109 Cooke Hall, State University at Buffalo, Buffalo, NY 14260. Application deadline is December 20, 1985

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



Molecular and **Behavioral** Neuroscience Center

Applications are invited for a Director to guide and develop a newly approved Neuroscience Center at the Rutgers-Newark campus. The mission of the Center is to develop a major basic research presence in the field of chemical and molecular biological bases of nervous system functions underlying behavior and to relate such basic research findings to clinically significant areas. The Center is a State-funded entity with funding available for six additional tenure-track faculty members, ten postdoctoral fellows and 12-15 graduate students, as well as appropriate support staff. Funding for major start-up equipment and laboratory renovations is also available

A strong interdisciplinary group of research scientists in the Institute of Animal Behavior, Department of Chemistry and Department of Zoology already exists at the campus and would fully participate in the Center. Collaborations with the nearby University of Medicine and Dentistry of New Jersey, with several pharmaceutical firms and with the Center for Advanced Biotechnology, Rutgers-New Brunswick have already been established. It is expected that the Director would promote interdisciplinary research among Rutgers-Newark faculty members and expand collaborations with nearby institutions.

The Director will be expected to have achieved international prominence in the neurosciences, and will be appointed at a special professorial level (salary negotiable). Please send curriculum vitae and letters of reference to: Dr. H.H. Feder

Chairperson, Neuroscience Director Search Committee Department of Zoology and Physiology Rutgers, The State University Smith Hall, 101 Warren Street Newark, New Jersey 07102 Rutgers, The State University is an Equal Opportunity/Affirmative Action Employer.

**18 OCTOBER 1985** 

POSTDOCTORAL POSITION—DNA Enzymology, Molecular Biology—Postdoctoral positions are available in several project areas in a broad-based, problem-oriented laboratory that is studying the enzymology of DNA replication, the regulation of the expression of replication genes, and the structure of replicative complexes. Techniques include most of those used in modern biochemistry, biophysics, and molecular biology, including protein purification and nolecular biology. Recent Ph.D.'s are preferred. Applicants should send their curriculum vitae and the names of three references to: Dr. Charles McHenry, Professor, Department of Biochemistry, Biophysics and Genetics, B-121, University of Colorado School of Medicine, 4200 East Ninth Avenue, Denver, Colorado 80262. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available 1 January to study antenna organization in green photosynthetic bacteria. Emphasis on spectroscopic measurements (UV-VIS, steady-state and time-resolved fluorescence, NMR). Salary: \$17,400 per year. Send résumé and three letters of reference by 1 November to: Dr. Robert Blankenship, Department of Chemistry, Arizona State University, Tempe, Ariz. 85287. Equal Opportunity/Affirmative Action Employer.

TWO POSTDOCTORAL POSITIONS are available to work on enzyme mechanism. Background in steady-state kinetics and organic synthesis preferred. Interested individuals should send a copy of their curriculum vitae and names of three references to: Dr. Paul F. Cook, Department of Biochemistry, North Texas State University, Denton, Tex. 76203. An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION in cell physiology is available to study vascular mechanisms of hypertension. Experience with protein isolation techniques or mammalian cell culture preferred. Send curriculum vitae and names of three references to: Dr. Richard Bukoski, Division of Nephrology/Hypertension, Department of Medicine, Oregon Health Sciences University (OHSU), 3181 S.W. Sam Jackson Park Road, Portland, Oregon 97201. OHSU is an Equal Opportunity Employer.

> POSTDOCTORAL POSITIONS IN CARCINOGENESIS

Two positions available immediately in established program, studying comparative mechanisms of carcinogenesis, promotion, and inhibition. Appointees may work in any of several areas including: xenobiotic metabolism, DNA damage and repair, cell-cell communication, tumor biology, chromatin-carcinogen interactions, and oncogene activation, and transforming genes in fish. Ph.D. in biochemistry, toxicology, molecular biology, or related field required. Positions are fixed term with possible renewals for 2 to 3 years at \$16,000 to \$20,000. Oregon State University is in the beautiful Willamette Valley, Oregon. Send curriculum vitae, transcripts, and three letters of reference by 22 November 1985 to: Dr. George S. Bailey, Environmental Health Sciences Center, Oregon State University (OSU), Corvallis, Ore. 97331. Telephone: 503-754-3164. OSU is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.

#### STAFF OFFICER

The NATIONAL RESEARCH COUNCIL, operating agency of the National Academies of Science and Engineering, and the Institution of Medicine, seeks applicants for the position of staff officer for the Board on Army Science and Technology. Duties will include assisting in the management of two or more studies, such as an assessment of explosive and other critical materials required for advanced army systems. Applicants should have demonstrated knowledge of other scientific and technological issues of greatest concern to the Army and a M.S., Ph.D., or equivalent work experience in physics or systems engineering. Send résumé to:

Dennis F. Miller National Research Council 2101 Constitution Avenue, NW Washington, D.C. 20418 Equal Opportunity Employer

#### **POSITIONS OPEN**

**POSTDOCTORAL POSITION** available immediately to study the activity and stability of immobilized enzymes involved in the regulation of prostaglandin biosynthesis. Position supported by NIH Program Project Grant until 30 June 1988. Send curriculum vitae and names of three references to: Elizabeth R. Hall, Ph.D., University of Texas Health Science Center at Houston, P.O. Box 20708, Houston, Tex. 77025. An Equal Opportunity Employer. Women and minorities are encouraged to apply.

**POSTDOCTORAL RESEARCH ASSOCIATE.** Available immediately in an active cardiac physiology research laboratory for evaluating the role of fatty acid intermediates on inhibition of energy production and mechanical function ischemic myocardium. Background and experience with mitochondria and submitochondrial particles with emphasis on bioenergetics are required. Training in cardiac physiology and experience with intact working heart preparation would be valuable. Send a letter of application, curriculum vitae, and names of three references to: Dr. A. J. Liedtke, Chairman, Division of Cardiology H6/338, Clinical Science Center, 600 Highland Avenue, Madison, Wis. 53792. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

The Parasitic Diseases Research Program of Puerto Rico at the Department of Biology of the University of Puerto Rico, Rio Piedras Campus, is seeking **POSTDOCTORAL RESEARCH ASSOCIATES** with primary interest in schistosomiasis as a model. Investigations involve the application of molecular genetics and basic immunology to immunity and immunodiagnosis of schistosomiasis and fascioliasis and the relationship of multiple concurrent infections between bacterial infections and schistosomiasis. Individuals would work with either Dr. George V. Hillyer or Dr. Terry C. Hazen. Preference will be given to those candidates with strong credentials for, and commitment to, developing an independent research program.

The position will be for 1 year with an option for renewal for one or more years depending on progress. Interested individuals should send curriculum vitae and a letter stating past, present, and future research interests, and have three letters of recommendation transmitted to: George V. Hillyer, Professor and Chairman, Department of Biology, University of Puerto Rico, Rio Piedras Campus, Rio Piedras, P.R. 00931.

POSTDOCTORAL RESEARCH ASSOCIATE to study the immobilization of GABA receptors on artificial membranes and solid supports, including the stabilization and characterization of immobilized receptor functionality. Requires Ph.D. degree. Preference will be given to protein chemists/biochemists and especially to persons with experience in current methodology for receptor characterization (that is, tagged probes, binding kinetics, IR or NMR ligandreceptor interactions). Position is available immediately for up to 3 years. This is part of the new Biotechnology Center established in September 1985 at the University of Pittsburgh by the U.S. Army with a major thrust in basic GABA receptor biochemical pharmacology and a long-range aim of developing receptor-based biosensors. Send curriculum vitae, summary of research experience, and names and addresses of three references to: Dr. L. B. Wingard Jr., Biotechnology Center Head, Department of Pharmacology, School of Medicine, University of Pittsburgh, Pittsburgh, Pa. 15261. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL/RESEARCH SCIENTIST POSI-TION available immediately to purify a prostacyclin stabilizing protein and investigate its role in the pathophysiology of microvascular thrombosis. Position supported by NIH Program Project Grant for a minimum of 3 years. Send curriculum vitae and names of three references to: Kenneth K. Wu, M.D., University of Texas Health Science Center at Houston, P.O. Box 20708, Houston, Tex. 77025. An Equal Opportunity Employer. Women and minorities are encouraged to apply.

SCIENTIFIC DIRECTOR—The American Red Cross Blood Services, Northwest Ohio Region, invites applications to establish/direct tissue preservation laboratory. Ph.D. in biological science required, with experience in cryopreservation of tissues, organs. Potential ability to secure grants essential. Faculty appointment at local medical school/university encouraged. Send curriculum vitae to: American Red Cross, 2275 Collingwood Boulevard, Toledo, Ohio 43620. Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

#### POSTDOCTORAL AND RESEARCH ASSOCIATES

Applications are invited for postdoctoral and/or research associate positions for studies on the molecular mechanisms of inflammatory cell activation. Studies involve: ligand-receptor dynamics and cell activation analysis by flow cytometry, fluorescence spectroscopy, analysis of intracellular messengers, and computer modeling (Dr. L. A. Sklar); receptor recycling, cytoskeletal interactions, biophysical mechanisms of membrane proteins in inflammatory cells (Dr. A. Jesaitis); and receptor signal transduction and regulation via GTP binding proteins in neutrophils (Dr. G. M. Bokoch). Interested candidates should have strong biochemical biophysical backgrounds, with some expertise with membrane proteins or computer modeling techniques.

Also available is a position for a molecular biologist for cloning and molecular biological studies of membrane proteins of interest in inflammatory cell function (Dr. Charles G. Cochrane).

Positions are available immediately. Send curriculum vitae, statement of interests, and names of three references to: Dr. Gary M. Bokoch, Department of Immunology, IMM12, Scripps Clinic and Research Foundation, 10666 North Torrey Pines Road, La Jolla, Calif. 92037

**POSTDOCTORAL RESEARCH ASSOCIATE** position available to work on a collaborative project (P. Low, J. Otto, and M. Harrison) investigating the biochemistry of membrane-cytoskeletal interactions with emphasis on the role of nonerythroid band 3 and its modification by tyrosine protein kinases. Send curriculum vitae and names of three references within 30 days to: Dr. Philip S. Low, Department of Chemistry, Purdue University, West Lafayette, Ind. 47907. Purdue University is an Equal Opportunity/ Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE, SEARCH EXTENDED. Delay in receipt of contract necessitates reopening search for a protein biochemist to study isolation and characterization of membrane GABA receptors. Requires Ph.D. degree. Preference will be given to persons having experience in isolation and purification of membrane proteins. Position available immediately for up to 3 years. Part of new Biotechnology Center established in September 1985 at University of Pittsburgh by U.S. Army with a major thrust in basic GABA receptor biochemical pharmacology and a long range aim of developing receptor-based biosensors. Send curriculum vitae, summary of research experience, and names and addresses of three references to: Dr. L. B. Wingard Jr., Biotechnology Center Head, Department of Pharmacology, School of Medicine, University of Pittsburgh, Pittsburgh, Pa. 15261. Affirmative Action/Equal Opportunity Employer.

#### **RESEARCH ASSOCIATE**

Postdoctoral research associate position available 1 October 1985, for studies on lipoprotein transport under varying hemodynamic stress in fresh canine carotid arteries utilizing a pulsatile perfusion apparatus. Experience in lipid biochemistry with emphasis on lipoprotein metabolism essential. Please send curriculum vitae with names of at least three references to: Vijay S. Warty, Ph.D., Division of Clinical Chemistry, Department of Pathology, University of Pittsburgh School of Medicine, 776 Scaife Hall, Pittsburgh, Pa. 15261. An Equal Opportunity/Affirmative Action Employer.

SENIOR SYSTEMS PROGRAMMER. Design and develop communications packages and terminal emulators for networking in general and medical areas. Supervise other systems program personnel; supervise maintenance of in-house IBM-PC network; provide technical and training support to end users. Requirements: M.S. in computer science, B.S. in chemistry; minimum of 2 years of research or work experience with computer networking, data communications, mainframe, and mini computers; minimum of 2 years of research or work experience programming in C, Basic, Pascal, and Fortran languages; 1 year of research or work experience with microcomputers and graphics programming; minimum of 1 year of research or work experience using IBM-PC, PC-DOS, UNIX AND VAX/VMS. Two references attesting to computer programming qualifications and ability to communicate effectively in team projects. Forty hours per week; \$28,000 per year. Send applications by 26 November to: E. Breitweiser, Job Order Number 1180750, Job Service, 206 North Broom Street, Madison, Wis. 53707. An Equal Opportunity Employer; employer-paid ad.

POSTDOCTORAL RESEARCH ASSOCIATE. Position available immediately to study the development and application of laser-based detectors for highperformance liquid chromatography. A strong background in chemical instrumentation is required, with some experience in laser spectroscopy and computer programming. Send curriculum vitae and two letters of recommendation to: Professor V. L. McGuffin, Department of Chemistry, Michigan State University, East Lansing, Mich. 48824–1322. MSU is an Affirmative Action/Equal Opportunity Employer.

#### POSTDOCTORAL RESEARCH ASSOCIATE

Position available from 1 December to work on structural models of the bacterial cell wall. The aim of the project is to understand the forces involved during growth, in order to explain how cells obtain and maintain their characteristic shape. International collaboration is already established between microbiologists and an engineer who are exploiting a unique fiber-forming bacterial system. Direct measurements of cell-wall strength have been made. Knowledge of the physical aspects of microbiology, including the effects of electric charge, is desirable. The appointment is for 2 years in the first instance. Send curriculum vitae and the names of two references to: Dr. J. J. Thwaites, University Engineering Department, Cambridge, CB2 1PZ, England. Information may be had from: Dr. N. H. Mendelson, Department of Molecular and Cellular Biology, University of Arizona, Tucson, Arizona 85721; telephone: 602-621-7241.

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

RADIATION THERAPY—UNIVERSITY OF PENNSYLVANIA. Laboratory scientists at assistant, associate, and/or full professor levels for expanding research program. Interest should be in radiobiology, cell biology, molecular biology, or protein chemistry. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. Inquiries should be directed to: John Biaglow, Ph.D., Radiation Therapy, 3400 Spruce Street, Philadelphia, Pa. 19104.

#### POSITIONS OPEN

#### POSTDOCTORAL RESEARCH POSITION

Postdoctoral research position is now available for a synthetic chemist to work in the area of neurotransmitter analogues. A knowledge of neurochemistry and drug-receptor interactions is desirable. The minimum starting salary is \$16,000. Great yearround recreation. Candidates should send curriculum vitae and the names of three references to: Dr. John B. Hynes, Professor of Pharmaceutical Sciences, Medical University of South Carolina, Charleston, S.C. 29425. Equal Opportunity/Affirmative Action Employer.

**RESEARCH STAFF POSITION.** Research in virus and cancer chemotherapy. Strong background in biochemistry and experience in enzyme isolation, enzyme kinetics, and cell culture desirable. Salary negotiable. Send résumé and names of three references to: Dr. W. Prusoff, Department of Pharmacology, Yale University School of Medicine, New Haven, Conn. 06510. An Equal Opportunity/Affirmative Action Employer.

#### SOLAR ACTIVITY THEORIST

The solar plasma physics group at University of California, Irvine (UCI) has an immediate opening for a kinetic theorist to perform analytic calculations and numerical computations of microscopic and macroscopic instability processes with practical applications to solar activity. These processes include magnetic reconnection, surface-wave heating, thermal conduction, non-thermal energy flow, particle transport and microwave radiation, with applications to solar flares, radio bursts, coronal heating, transition-region structure, and prominence formation. Requirements for this associate research physicist position comprise 5 years of relevant postdoctoral work and a significant publication record. Also desirable are experience in directing other theorists and in consulting with basic plasma experimentalists.

Send résumé and the names of four references to: Professor Gerard Van Hoven, Department of Physics, University of California, Irvine, Calif. 92717. University of California is an Affirmative Action/Equal Opportunity Employer.

#### POSITIONS OPEN

#### RESEARCH ASSOCIATE POSITION IN EVOLUTIONARY AND MOLECULAR BIOLOGY

Available immediately to study vertebrate and molecular evolution through DNA sequences. Candidates should be trained in evolutionary or molecular biology and should desire to combine the two fields. Send curriculum vitae, reprints of representative publications, and names of three references to:

#### Dr. Morris Goodman Department of Anatomy Wayne State University School of Medicine Detroit, Mich. 48201

Affirmative Action/Equal Opportunity Employer

#### **RESEARCH POSITION**

To direct a program of study into the molecular aspects of ionizing radiation of human tumors and DNA repair-deficient cell lines. Requirements: Ph.D. in biochemistry with 5 years of postdoctoral experience in biochemistry. Candidate must have a strong background in radiation biology, DNA repair, and ADP-ribose metabolism. Experience with tissue culture of human cell lines required. Position nontenured; salary negotiable. Applications and curriculum vitae to:

#### Anatoly Dritschilo, M.D. Department of Radiation Medicine Georgetown University Medical Center 3800 Reservoir Road, NW Washington, DC 20007

Applications accepted until 1 November 1985. An Affirmative Action/Equal Opportunity Employer.

RETINA SPECIALIST—University of Michigan, full-time faculty position; assistant, associate, or full professor level. Training in ophthalmology and fellowship in vitreo-retinal diseases and surgery reguired. Opportunity for clinical and laboratory research, resident and student teaching, clinical practice. Contact: Paul R. Lichter, M.D., Department of Ophthalmology, University Hospital, W. K. Kellogg Eye Center 004, Ann Arbor, Michigan 48109. The University of Michigan is a nondiscriminatory, Affirmative Action Employer.

## Applied Biosystems

#### **DNA Product Management and Support**

Applied Biosystems, Inc., the leading manufacturer of instrument-reagent systems and chemical products for the synthesis and analysis of peptides, proteins and DNA, has three openings at their Foster City, California facility:

**Product Manager:** Responsible for marketing of automated DNA Synthesizers. Degree in Chemistry or Molecular Biology with experience in product management, technical sales or product support required.

**Product Support Scientist, DNA Synthesis:** Responsible for technical support of automated DNA Synthesizers including seminars, user meetings, technical presentations and papers. Degree in Chemistry and three years experience in DNA synthesis required. Must be willing to travel.

**Product Support Scientist, DNA Sequencer**: Opportunity to participate in the development of a new automated DNA Sequencer. After product introduction, this person will be responsible for technical support of users and training of sales personnel. Degree in Molecular Biology or related field and three years experience in DNA sequencing are required. Must be able to travel internationally.

For immediate, confidential consideration, please send your resume and letter describing your specific qualifications for these positions to:

Dr. E. J. Heron, Applied Biosystems, Inc. 850 Lincoln Centre Drive, Foster City, CA 94404

## Biotechnology & Environmental Research Scientists

IGT, a leader in advanced energy R&D, seeks talented scientists to become part of a multi-disciplinary research team involved in resource recovery, energy utilization, and biochemical degradation. You will be responsible for conducting innovative research on existing programs with the opportunity to develop new programs in related areas of your interest.

#### **MICROBIAL BIOCHEMIST/ PHYSIOLOGIST**

Ph.D. in related field with training in microbial genetics, physiology or enzymology preferred. Experience in hydrocarbon metabolism is desirable. Must have skills in state-of-the-art techniques in enzymology or microbial genetics.

#### **ENVIRONMENTAL MICROBIOLOGIST**

Ph.D. in a discipline related to aerobic or anaerobic microbial degradation. Experience in degradation of sulfur-containing or toxic organic compounds is strongly preferred.

Applicant should have strong analytical skills and supervisory potential. Effective interpersonal and communication skills are essential.

We offer an attractive salary and benefit package with excellent opportunity for professional growth. Please send resume with salary history to:

#### Personnel Dept. S

Institute of Gas Technology 3424 S. State St. · Chicago, IL 60616

# RESEARCH ASSOCIATE: MICROBIOLOGIST

Conduct research in biological nitrogen fixation by legume-bacterial association. M.S. in microbiology or closely related field required (Ph.D. preferred). Two-year appointment \$18,000 per year. Send application letter, résumé, transcripts, and telephone numbers of three references to: Dr. Douglas A. Johnson, Crops Research Laboratory, Utah State University, Logan, Utah 84322–6300.

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## RESEARCH SCIENTIST CENTRIFUGATION

Spinco Division of Beckman Instruments, a world leader in bioanalytical instrument systems, is seek-ing a creative professional to join its Applications and Centrifuge Research team. The successful appli-cant will be involved in the discovery and development of new separation systems as well as partici-pating in application and new method innovations for high-tech centrifuges and rotors.

An in-depth background in the theory of centrifuga-tion and practical experience in analytical and pre-parative centrifugation techniques are required. The qualified candidate will probably have a Ph.D. in biological extends to the techniques are required for the second formation of the seco biological sciences, together with a sound founda-tion in physical chemistry and applicable postdoctoral experience.

We offer excellent salary and benefits, and an attrac-tive relocation package. For confidential consider-ation, send your résumé, salary requirements, and the names of three references to: Dr. J. C. Osborne, Jr., Beckman Instruments, Inc., 1050 Page Mill Road, Palo Alto, Calif. 94304. Applicants must be a U.S. citizen or have the legal right to work in the United States. Equal Opportunity Employer.

SUPERVISORY PHYSICAL SCIENTIST or OCEANOGRAPHER: The Great Lakes Environ-mental Research Laboratory of the National Oceanic and Atmospheric Administration in Ann Arbor. Michigan, is seeking a senior level scientist to man-age its Physical Limnology and Meterology Group. Duties include directing a group of scientists, engi-neers, and technicians involved with research on Great Lakes water movements, temperature, waves, and oscillations with theoretical and experimental and oscillations with theoretical and experimental approaches to improve Great Lakes prediction. This position is in the Competitive Service and may be filled at either the GS-15 or GS-14 level. Entrance level salaries are \$52,262 and \$44,430 per annum, respectively. SELECTION FACTORS: Applicants should have demonstrated research ability and com-prehensive understanding on the campile of direct prehensive understanding and be capable of direct-ing research in the hydrodynamics of ocean, lakes and the atmosphere, and in numerical prediction and simulation methods. Additional technical informa-tion may be obtained from: Dr. Eugene J. Aubert, telephone: 313-668-2245. Submit Form 171 and de-tailed résumé including bibliography of relevant pub-lications, research experience, references, and edu-cation to: Central Administrative Sumeet Center cation to: Central Administrative Support Center— Personnel, 1747 Federal Building, 601 East 12 Street, Kansas City, Mo. 64106. Applications must be post-marked no later than 8 November 1985 to receive consideration. An Equal Opportunity Employer.

## COLLEGE OF THE VIRGIN ISLANDS NOTICE OF VACANCY

Visiting assistant or visiting associate professor of marine biology (non-tenure-track, renewable) begin-ning 15 January 1986. Candidates should have a doctorate in marine ecology, marine biology, or related field and college-level teaching experience. related held and college-level teaching experience. Field experience and research interest in tropical shallow-marine ecosystems and vertebrates are de-sirable. Will teach up to 12 credit hours per semester in oceanography, marine ecology, directed research in marine biology, and/or selected topics in marine biology. Aggregate compensation: \$24,526 to \$34,027, plus liberal benefits. Address letter of application, résumé, and three letters of recommendation by 1 November 1985 (late applications accepted until filled) to: Dr. LaVerne Ragster, Chairperson, Divi-sion of Science and Mathematics, College of the Virgin Islands, St. Thomas, U.S. Virgin Islands 00802.

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#### WATER RESOURCES SPECIALIST

Full-time, professional position in Environmental Protection Division of established southwest Florida conservation organization. Ph.D. or equivalent experience with background in hydrology or envi-ronmental geology required. Write: Dr. Mark Bene-dict, The Conservancy, Inc., 1450 Merrihue Drive, Naples, Florida 33942.

#### POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE POSI-TIONS available in biochemical, pharmacological, and immunological studies of protein kinase C in cancer, heart, and brain. Send curriculum vitae to: Dr. J. F. Kuo, Department of Pharmacology, Emory University, School of Medicine, Atlanta, Ga. 30322. An Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL RESEARCH POSITIONS** (two to three) available starting on or before 1 Jan. 1986 in the following general areas: (i) biochemistry and immunology of CNS and PNS antigens; (ii) structure and function of CNS myelin proteins; and (iii) pa-thology and distribution of specific brain epitopes in cultured cells, neurologic mutant mice and human thology and distribution of specific brain epitopes in cultured cells, neurologic mutant mice, and human lymphocytes. Background interest and experience in protein chemistry, immunology, hybridoma applica-tions, cell culture, immunohisto/cytochemistry, neu-rochemistry, or neuropathology desirable. Recent Ph.D.'s in fields of immunology, biochemistry, anat-omy, or related areas preferred. Starting salary is \$18,000. Please send curriculum vitae and names of three references by 15 December 1985 to: Dr. Terry Jue Snrikle. Denartment of Neurology and Cell and Joe Sprinkle, Department of Neurology and Cell and Molecular Biology, Medical College of Georgia, Au-gusta, Ga. 30912. 13273. Equal Opportunity/Affirma-tive Action Employer.

#### SENIOR ANALYST/PROJECT DIRECTOR

SENIOR ANALYST/PROJECT DIRECTOR Technical support agency, U.S. Congress, as mem-ber of a multidisciplinary program addressing tech-nologies and policies that affect the ability of U.S. manufacturing industries to compete internationally. The program is looking for a person who can bring to bear a systems view of manufacturing on questions of competitiveness, that is, a view that integrates technology with the skills and motivation of the work force. The applicant should have an advanced degree, and several years of experience in engineer-ing, engineering management, work organization ing, engineering management, work organization design, or the analysis of industrial competitiveness. Broad knowledge of engineering, technology, and industry essential. Experience in manufacturing de-sirable. Excellent writing and communication skills sirable. Excellent writing and communication skills needed; proven ability to organize complex project and procedure results within schedule and budget is required. Ability to examine technology in a context of public policy is desirable. Employment may be on a contract basis or permanent staff basis. Salary is negotiable based on previous experience. Location is in Washington, D.C. Send résumé, salary history, and names of three references to: Denise DeSanctis, Office of Technology Assessment, U.S. Congress, Washington, D.C. 20510.

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#### ASSISTANTSHIPS

#### ASSISTANTSHIPS

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

#### DOCTORAL PROGRAMS

# DOCTORAL PROGRAM IN MOLECULAR AND CELLULAR BIOLOGY AND PATHOBIOLOGY

Interdisciplinary program leading to Ph.D. degree seeks qualified candidates interested in fundamental molecular and cellular biology and its application to disease. Assistantships of \$9000 are available on a competitive basis. Contact: Director, MCBP Pro-gram, College of Graduate Studies, Medical Universi-ty of South Carolina, Charleston, South Carolina 29425. Interdisciplinary program leading to Ph.D. degree

COLLEGE OF GRADUATE STUDIES, MEDICAL UNIVERSITY OF SOUTH CAROLINA, offers pro-grams leading to Ph.D. and M.D./Ph.D. degrees in anatomy, biochemistry, biometry, basic and clinical immunology and microbiology, molecular and cellu-lar biology and pathobiology, pathology, pharma-ceutical sciences, pharmacology, and physiology, \$9000 assistantships available to highly qualified students. Contact: Dean, College of Graduate Stud-ies, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S.C. 29425.

#### **TRAINING PROGRAM**

# POSTDOCTORAL AND PREDOCTORAL TRAINING PROGRAM IN BIOANALYTICAL RESEARCH

This NCI-supported training program provides research opportunities aimed at developing innova-tive and effective analytical methodology for the quantitative determination of therapeutic levels of quantitative determination of therapeutic levels of drugs, particularly agents used in combating cancer, and their biotransformation products in biological fluids. Collaborative research projects with the Cen-ter for Bioanalytical Research are available. Appli-cants must be citizens or permanent residents of the United States. Postdoctoral candidates should send résumé and three references. Predoctoral students should make application to the graduate program in the Department of Pharmaceutical Chemistry. Correspondence should be directed to: Dr. Ronald T. Borchardt, 3006 Malott Hall, Department of Pharma-ceutical Chemistry, The University of Kansas, Law-rence, Kans. 66045. Equal Opportunity/Affirmative Action Employer.

#### **FELLOWSHIPS**

#### POSTDOCTORAL FELLOWSHIP

Postdoctoral position available immediately for a pharmacologist/medicinal chemist to study the metabolism and mode of action of antineoplastic drugs in vitro and in vivo. Candidate with relevant re-search experience is preferred. Send curriculum vitae and three letters of reference to: **Dr. A. Mohsin** Mian, Papanicolaou Comprehensive Cancer Center, University of Miami School of Medicine, P.O. Box 016960 (R-71), Miami, Florida 33101.

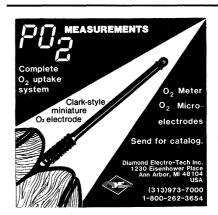
#### POSTDOCTORAL FELLOWSHIP Postdoctoral fellowship in experimental cancer chemotherapy

Our well-funded and well-equipped multidisciplinary experimental cancer chemotherapy program has im-mediate position available for a postdoctoral fellow to work on markers of drug resistance. Emphasis is on production and use of monoclonals against markers which can be used for identification of drug resistant cell in tumors. Previous experience in production and screening of monoclonals is re-quired. For further details, write to: **Dr. A. Krishan**, Scientific Director, Papanicoloau Comprehensive Cancer Center, P.O. Box 016960 (R-71), Miami, Fla. 33101

POSTDOCTORAL FELLOWSHIP immediately available to participate in an ongoing project on cloning and regulation of expression of human O<sup>6</sup>methylguanine-DNA methyltransferase gene in the laboratory of Dr. Sankar Mitra. Background in biotaboratory of Dr. Sankar Mitra. Background in bio-chemistry/molecular biology necessary. Experience in recombinant DNA techniques preferable. Starting at \$18,500 per year. Send curriculum vitae and names of three references to:

Dr. W. E. Barnett, Director Oak Ridge Graduate School of Biomedical Sciences Biology Division, P.O. Box Y Oak Ridge, Tenn. 37831

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