

Animal Cell Biotechnology. R. E. SPIER and J. B. GRIFFITHS, Eds. Academic Press, Orlando, FL, 1985. In two volumes, Vol. 1, xviii, 347 pp., illus. \$55. Vol. 2, xx, 475 pp., illus. \$66.

These two volumes are intended to provide the newcomer with "many details about how to set up and operate cell cultures in a variety of ways and at scales ranging between 0.001 and 10,000 litres" and the specialist with "a well-referenced and well-indexed state-of-the-art report." The contributors, most of whom are British or French, were asked to provide "a balanced, thoughtful and fair assessment of alternative methods to achieve particular ends," but the editors warn that the reader "will have to contend with the clear enthusiasm of one or another of the various contributors."

Volume 1 contains 13 chapters divided into sections on the basic components of cell culture systems and the mass cultivation and production of cells, with chapters on the cultivation of animal cells in continuous-flow culture, various processes in monolayer growth systems, the measurement and control of physical and chemical parameters, and computer applications in animal cell biotechnology.

Volume 2 contains 17 chapters divided into sections on the generation of cell culture products such as lymphocyte hybridomas and insect-pathogenic viruses, the processing of products (clarification and sterilization, inactivation of viruses, purification, concentration, fractionation, and storage), and the testing of products. The volume concludes with a section on genetic engineering and the future of animal cell biotechnology.—L.H.

Books Received

Complex Systems. Operational Approaches in Neurobiology, Physics, and Computers. H. Haken, Ed. Springer-Verlag, New York, 1985. x, 365 pp., illus. \$39. Springer Series in Synergetics. From a symposium, Schloss Elmau, Bavaria, May 1985.

Contact Mechanics. K. L. Johnson. Cambridge University Press, New York, 1985. xii, 452 pp., illus. \$89.50.

The Crab Nebula and Related Supernova Remnants. Minas C. Kafatos and Richard B. C. Henry, Eds. Cambridge University Press, New York, 1985. xvi, 285 pp., illus. \$39.50. From a workshop, Fairfax, VA, Oct. 1984.

Creativity in Science. A Symposium. Mudundi R. Raju, James A. Phillips, and Francis Harlow, Eds. Los Alamos National Laboratory, Los Alamos, NM, 1985 (available from National Technical Information Service, Springfield, VA). xviii, 127 pp., illus. Paper, \$14.50. From a colloquium and a symposium, Los Alamos, March and Aug. 1984. LA-10490-C. UC-13.

Culture and Depression. Studies in the Anthropology and Cross-Cultural Psychiatry of Affect and Disorder. Arthur Kleinman and Byron Good, Eds. University of California Press, Berkeley, 1985. xii, 535 pp. \$45.

The Culture-Bound Syndromes. Folk Illnesses of Psychiatric and Anthropological Interest. Ronald C. Simons and Charles C. Hughes, Ed. Reidel, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). xvi, 516 pp. \$69.

The Ecology and Management of African Wetland Vegetation. A Botanical Account of African Swamps and Shallow Waterbodies. Patrick Denny, Ed. Junk, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). xii, 344 pp., illus. \$78.50. Geobotany, vol. 6.

Gas-Phase Chemiluminescence and Chemiluminescence. Arthur Fontijn, Ed. North-Holland, Amsterdam, 1985 (U.S. distributor, Elsevier, New York). xii, 372 pp., illus. \$40.75. Based on a symposium, Philadelphia, Aug. 1984.

Gender and Personality. Current Perspectives on Theory and Research. Abigail J. Stewart and M. Brinton Lykes, Eds. Duke University Press, Durham, NC, 1985. vi, 325 pp. Paper, \$14.95. Originally published as *Journal of Personality*, vol. 53, no. 2.

General Concepts for the Dosimetry of Internally Deposited Radionuclides. Recommendations. National Council on Radiation Protection and Measurements, Bethesda, MD, 1985. viii, 109 pp., illus. Paper, \$12. NCRP Report no. 84.

General Relativity. An Introduction to the Theory of the Gravitational Field. Hans Stephani. John Stewart, Ed. Cambridge University Press, New York, 1985. xvi, 298 pp., illus. Paper, \$24.95. Translated from the German edition (Berlin, 1980) by Martin Pollock and John Stewart. Reprint, 1982 edition.

Genetics and The Law III. Aubrey Milunsky and George J. Annas, Eds. Plenum, New York, 1985. xx, 514 pp. \$42.50. From a symposium, Boston, April, 1984.

Interaction Structure and Strategy. Starkey Duncan, Jr., and Donald W. Fiske. Cambridge University Press, New York, and Editions de la Maison des Sciences de l'Homme, Paris, 1985. xx, 342 pp. \$39.50. Studies in Emotion and Social Interaction.

Interaction Theory in Forest Ecology and Management. Rolfe A. Leary. Nijhoff/Junk, Dordrecht, 1985. x, 219 pp., illus. \$39.50. Forestry Sciences.

Interactions Between Electromagnetic Fields and Cells. A. Chiabrera, C. Nicolini, and H. P. Schwan, Eds. Plenum, New York, 1985. xiv, 639 pp., illus. \$95. NATO Advanced Science Institutes Series A, vol. 97. From a workshop, Erice, Sicily, Sept. 1984.

An Introduction to Coastal Ecology. Patrick J. S. Boaden and Raymond Seed. Blackie, Glasgow, 1985 (U.S. distributor, Chapman and Hall, New York). vi, 218 pp., illus. \$39.95; paper, \$19.95. Tertiary Level Biology.

Introduction to Linear and Convex Programming. Neil Cameron. Cambridge University Press, New York, 1985. viii, 149 pp., illus. \$34.50; paper, \$12.95. Australian Mathematical Society Lecture Series, 1.

An Introduction to Pascal and Precalculus. Apple Pascal Version. Marvin Marcus. Computer Science Press, Rockville, MD, 1986. xx, 421 pp. Spiral bound, \$29.95. Computers and Math Series.

An Introduction to Plant Cell Development. Jeremy Burgess. Cambridge University Press, New York, 1985. viii, 246 pp., illus. \$54.50; paper, \$19.95.

Introduction to the Construction of Class Fields. Harvey Cohn. Cambridge University Press, New York, 1985. x, 213 pp. \$44.50. Cambridge Studies in Advanced Mathematics, 6.

Inverse Heat Conduction. Ill-Posed Problems. James V. Beck, Ben Blackwell, and Charles R. St. Clair, Jr. Wiley-Interscience, New York, 1985. xviii, 308 pp., illus. \$44.95.

Japanese Electronics. A Worm's-Eye View of Its Evolution. Makoto Kikuchi. Simul, Tokyo, 1983 (U.S. distributor, ISBS, Portland, OR). xiv, 209 pp., illus. Paper, \$19.95. Translated from the Japanese by Simul International.

Karst Geomorphology. J. N. Jennings. Blackwell, New York, 1985. x, 293 pp., illus. \$49.95; paper, \$14.95. Second edition of *Karst*.

The Kingdom of Coal. Work, Enterprise, and Ethnic Communities in the Mine Fields. Donald L. Miller and Richard E. Sharpless. University of Pennsylvania Press, Philadelphia, 1985. xxiv, 360 pp., illus. \$35; paper, \$17.95.

The Knowledge Elite and the Failure of Prophecy. Eva Etzioni-Halevy. Allen and Unwin, Winchester, MA, 1985. viii, 136 pp., illus. \$18.50; paper, \$9.50. Controversies in Sociology, 18.

Lake Stechlin. A Temperate Oligotrophic Lake. S. Jost Casper, Ed. Junk, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). xiv, 553 pp., illus. \$95.

Language and Human Nature. Toward a Grammar of Interaction and Discourse. Harvey B. Searles. University of Minnesota Press, Minneapolis, 1985. viii, 287 pp. \$19.50; paper, \$9.95. Second edition of *After Metaphysics*.

The Nature of Irreversibility. A Study of Its Dynamics and Physical Origins. Henry B. Hollinger and Michael John Zenzen. Reidel, Dordrecht, 1985 (U.S. dis-

tributor, Kluwer, Hingham, MA). xii, 340 pp., illus. \$39.50. University of Western Ontario Series in Philosophy of Science, vol. 28.

Neurogenetics. Principles and Practice. Roger N. Rosenberg. Raven, New York, 1986. xii, 324 pp., illus. \$49.50.

Neurotransmitter Actions in the Vertebrate Nervous System. Michael A. Rogawski and Jeffery L. Barker, Eds. Plenum, New York, 1985. xxviii, 511 pp., illus. \$69.50.

El Niño North. Niño Effects in the Eastern Subarctic Pacific Ocean. Warren S. Wooster and David L. Fluharty, Eds. Washington Sea Grant Program, Seattle, 1985. x, 312 pp., illus. Paper, \$10.

Oceanography of the Southeastern U.S. Continental Shelf. L. P. Atkinson, D. W. Menzel, and K. A. Bush, Eds. American Geophysical Union, Washington, DC, 1985. viii, 156 pp., illus. \$20. Coastal and Estuarine Sciences 2.

Occupational Hazards and Reproduction. K. Hemminki, M. Sorsa, and H. Vainio, Eds. Hemisphere, Washington, DC, 1985. x, 333 pp., illus. \$69.95. From a course, Helsinki, 1981.

125 Years of Biological Research, 1858-1983. A symposium. Illinois Natural History Survey, Urbana, 1985. viii, 195 pp., illus. Illinois Natural History Survey Bulletin, vol. 33, article 3. From a symposium, Urbana, Sept. 1983.

Open-Hole Log Analysis and Formation Evaluation. Richard M. Bateman. International Human Resources Development Corporation, Boston, 1985. xvi, 647 pp., illus. \$82.

Optical Bistability. Controlling Light with Light. Hyatt M. Gibbs. Academic Press, Orlando, FL, 1985. xii, 471 pp., illus. \$54.50; paper, \$34.95.

The Organization and Its Ecosystem. A Theory of Structuring in Organizations. Charles E. Bidwell and John D. Kasarda. JAI Press, Greenwich, CT, 1985. xxiv, 248 pp., illus. \$49.50. Monographs in Organizational Behavior and Industrial Relations, vol. 2.

Petroleum Geology. F. K. North. Allen and Unwin, Boston, 1985. xii, 607 pp., illus. \$60; paper, \$34.95.

Petroleum Spills in the Marine Environment. The Chemistry and Formation of Water-In-Oil Emulsions and Tar Balls. James R. Payne and Charles R. Phillips. Lewis, Chelsea, MI, 1985. x, 148 pp., illus. \$34.95.

Pharmacokinetics and Pharmacodynamics of Psychoactive Drugs. Gene Barret and C. Nora Chiang, Eds. A Research Monograph. Biomedical Publications, Foster City, CA, 1985. xvi, 505 pp., illus. \$37.50.

Photoelectrochemical Solar Cells. Suresh Chandra. Gordon and Breach, New York, 1985. xiv, 270 pp., illus. \$59. Electrocomponent Science Monographs, vol. 5.

Physics with Health Science Applications. Paul Peter Urone. Harper and Row, New York, 1985. xvi, 496 pp., illus. Paper, \$20.50.

The Physiologic, Metabolic, and Immunologic Actions of Interleukin-1. Matthew J. Kluger, Joost J. Oppenheim, and Michael C. Powanda, Eds. Liss, New York, 1985. xxvi, 559 pp., illus. \$84. Progress in Leukocyte Biology, vol. 2. From a symposium, Ann Arbor, MI, June 1985.

Plague Ecotoxicology. Including Historical Aspects of the Disease in the Americas and the Eastern Hemisphere. Chester David Rail. Thomas, Springfield, IL, 1985. xxii, 210 pp., illus. \$29.75.

Semiconductors and Semimetals. Vol. 22, Lightwave Communications Technology: Part E, Integrated Optoelectronics. W. T. Tsang, Ed. Academic Press, Orlando, FL, 1985. xx, 325 pp., illus. \$53.

Seven Clues to the Origin of Life. A Scientific Detective Story. A. G. Cairns-Smith. Cambridge University Press, New York, 1985. xxii, 131 pp., illus. \$17.95.

Sex in Nature. Chris Catton and James Gray. Facts on File, New York, 1985. 224 pp., illus. \$19.95.

Sharks of the World. Rodney Steel. Facts on File, New York, 1985. 192 pp., illus. \$17.95.

Software Specification Techniques. Narain Gehani and Andrew McGettrick. Addison-Wesley, Reading, MA, 1986. xii, 477 pp., illus. \$32.95. International Computer Science Series.

Theodore Roosevelt. The Making of a Conservationist. Paul Russell Cutright. University of Illinois Press, Urbana, 1985. xvi, 287 pp., illus. \$27.50.

The Use of Words in Context. The Vocabulary of College Students. John W. Black et al. Plenum, New York, 1985. xii, 263 pp. \$45. Cognition and Language: A Series in Psycholinguistics.

Vaccinia Viruses as Vectors for Vaccine Antigens. Gerald V. Quinnan, Jr., Ed. Elsevier, New York, 1985. xiv, 258 pp. \$44. From a workshop, Chevy Chase, MD, Nov. 1984.

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Balances

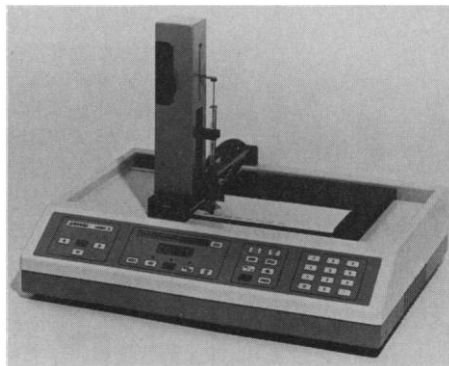
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Literature

Fluorescence Lifetime Measurements are treated in an applications bulletin. SLM Instruments. Circle 578.

Liquid Chromatograph describes the model 200 and its specifications and accessories, including an advanced ternary solvent delivery system. Bioanalytical Systems. Circle 579.

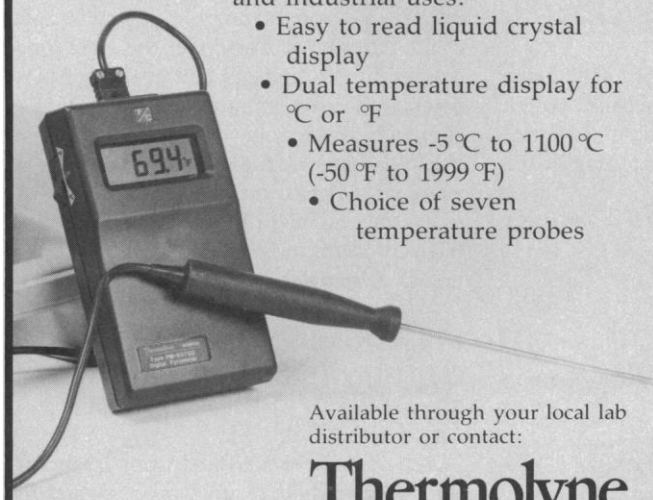
Laboratory Equipment lists manipulators, pH meters, electrodes, syringe pumps, tissue slicers, chart recorders, and glass capillaries. World Precision Instruments. Circle 580.

Computer Graphics for Chromatographers is the subject of an introductory monograph on the Maxima chromatography workstation. Dynamic Solutions. Circle 581.

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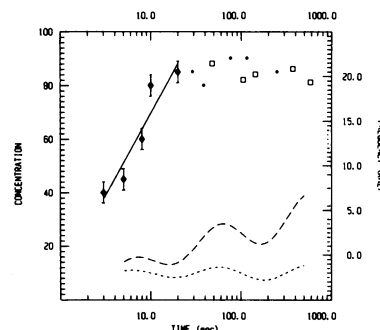
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Deadline for receipt of applications is 15 April 1986. *The Medical College of Virginia (Virginia Commonwealth University) is an Equal Opportunity/Affirmative Action Employer.*

THE DEPARTMENT OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS, THE STRITCH SCHOOL OF MEDICINE, LOYOLA UNIVERSITY OF CHICAGO, is seeking an ambitious tenure-track faculty member at the rank of **ASSISTANT PROFESSOR**. The candidate should have a Ph.D. and/or M.D. degree, postdoctoral experience, and the capability to develop a productive, independent research program, attract research support, and to teach.

The Department of Pharmacology and Experimental Therapeutics currently consists of ten full-time basic science faculty members. Their research areas encompass neuropharmacology, neurotoxicology, psychopharmacology, neuroendocrinology, hematopharmacology, clinical pharmacology, pharmacology of ganglionic neuroeffector transmission, and anuran acoustic neuroethology. Teaching involves an active graduate and medical student training program.

The position is available immediately. Salary is competitive. Candidates should send their curriculum vitae, three letters of recommendation, representative reprints, and a synopsis of their current and future research interests to: **Dr. Israel Hanin, Chairman, Department of Pharmacology and Experimental Therapeutics, Loyola University Medical Center, 2160 South First Avenue, Maywood, IL 60153. Telephone: 312-531-3261.**

Loyola University is an Equal Opportunity Employer.

BENEFICIATION RESEARCH DIRECTOR

The Florida Institute of Phosphate Research seeks an individual to be responsible for the direction and implementation of the institute's contractual and in-house research program in the areas of phosphatic clay management and mineral processing. The candidate should possess at least a B.S. in chemistry, mineralogy, mineral processing, or a related field and have at least 4 years of experience, preferably with industry research and development.

Submit a completed State of Florida Employment Application, résumé, and the names and telephone numbers of at least three references to: **1855 West Main Street, Bartow, Florida 33830; telephone: 813-533-0983.**

POSITIONS OPEN

ASSISTANT PROFESSOR. D.V.M., Ph.D. or D.V.M./Ph.D. degree in anatomy or associated field and/or specialty Board-certification or eligibility. Candidate must have demonstrated interest, aptitude, and experience in teaching undergraduate, professional, and graduate levels in areas of anatomy with emphasis in surgical anatomy. Candidate must have demonstrated interest and achievement in basic or clinical research. Position available 1 July 1986. Salary dependent upon qualifications/experience. Send curriculum vitae, bibliography, and names of three references to: **Dr. C. G. Plopper, Chair, Department of Anatomy, School of Veterinary Medicine, University of California, Davis, Davis, California 95616.**

An Affirmative Action/Equal Opportunity Employer.

Tenure-track **ASSISTANT/ASSOCIATE PROFESSOR** position is available in the **Department of Physiology**, Northwestern University Medical School. Applications are invited from individuals who possess the Ph.D. and/or M.D. degree, have completed postdoctoral training, and have identified an area suitable for development of a vigorous research program related to integrative and cellular aspects of neural and endocrine control of physiological systems. Interested individuals should submit curriculum vitae, a statement of research goals, and the names of four references to:

Dr. D. O. Nelson
Chairman, Search Committee
Department of Physiology
Northwestern Medical School
303 East Chicago Avenue
Chicago, IL 60611

Northwestern University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR—PATHOLOGY/CLINICAL VIROLOGY. The Department of Pathology, Medical College of Wisconsin, Milwaukee, Wisconsin, is seeking a Ph.D. with extensive and comprehensive research training in virology for a challenging and diversified position. This individual will be expected to establish and direct a fully staffed and supported interdepartmental clinical virology laboratory at the Milwaukee Regional Medical Center. The clinical laboratory is part of a large support system for a rapidly expanding bone marrow transplantation program. This individual will be expected to develop an extramurally supported research program and participate in multidisciplinary research efforts. Persons whose research interests are related to bone marrow transplantation are especially urged to apply. Send a letter describing all administrative experience, research interests, curriculum vitae, and the names of three references by 30 April to: **Susan Koethe, Ph.D., Chairman of Search Committee, Department of Pathology, Medical College of Wisconsin, 8700 West Wisconsin Avenue, Milwaukee, WI 53226. Equal Opportunity/Affirmative Action Employer, M/F/H.**

ASSISTANT PROFESSORSHIPS OF MOLECULAR BIOLOGY AT THE OREGON HEALTH SCIENCES UNIVERSITY

The Department of Microbiology and Immunology and the Institute for Advanced Biomedical Research are jointly seeking **three** outstanding individuals to establish strong research programs focused on molecular aspects of differentiation in prokaryotic or eukaryotic systems. Particular preference for individuals studying gene expression in lymphocytes, retroviral or other viral systems, or eukaryotic or prokaryotic cells. Applicants should have demonstrated research productivity by intensive postdoctoral training and a strong record of publications. Individuals selected will be expected to participate in teaching graduate, medical, and nursing students. Qualified applicants can be appointed to joint positions in both the Department of Microbiology and Immunology and the Institute for Advanced Biomedical Research. The applications should be accompanied by a detailed curriculum vitae including a thorough discussion of previous research experience and future direction.

Applications, including at least three letters of recommendation, should be sent to: **Professor Jules V. Halum, Chairman, Department of Microbiology and Immunology, Oregon Health Sciences University, 3181 S. W. Sam Jackson Park Road, Portland, Oregon 97201. OHSU is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT PROFESSOR, NATURAL RESOURCES POLICY AND MANAGEMENT. This is a tenure-track position in Cornell's Department of Natural Resources. The 60 percent research and 40 percent teaching commitments will focus on contemporary concepts and methods (such as decision theory and risk analysis) used in natural resource policy and management. Teaching of two courses, one at the graduate level in policy and a second for undergraduates on the basics of resource management, is expected. A Ph.D. with at least one degree in natural resources or a closely related field is required. The individual should have research experience and publications of direct relevance to the responsibilities described and demonstrated interest and skill in teaching. An emphasis on the biological aspects of water resources and/or environmental toxicology and/or watershed management is preferred. Send nominations, inquiries, or letters of application, curriculum vitae, transcripts, and have three letters of recommendation sent to: **Professor Bruce T. Wilkins, Chairman, Search Committee, 110 Fernow Hall, Department of Natural Resources, New York State College of Agriculture and Life Sciences, Cornell University, Ithaca, New York 14853; telephone: 607-255-2162.** Closing date is 1 May 1986. Employment can begin 1 September. *Cornell University is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR AND ASSISTANT NEMATOLOGIST: Available 1 July 1986, an 11-month, tenure-track position. Research, teaching, and student advising responsibilities in the areas of molecular biology, molecular genetics, and cell biology, particularly with reference to nematodes. The appointee will be expected to develop a strong research program on the genetic and molecular bases of nematode/plant interactions. A Ph.D. and experience in molecular biology, molecular genetics, and nematology are required, with a record of research productivity. Application deadline: 1 June 1986. Send curriculum vitae, statement of research and teaching interests, official undergraduate and graduate transcripts, list of publications and submitted manuscripts, names and addresses of at least three references to: **H. K. Kaya, Search Committee Chairman, Division of Nematology, University of California, Davis, California 95616. The University of California is an Affirmative Action/Equal Opportunity Employer.**

DEPARTMENT OF PHARMACOLOGY UNIVERSITY OF MIAMI

ASSISTANT PROFESSOR OF PHARMACOLOGY. The Department of Pharmacology at the University of Miami School of Medicine invites qualified Ph.D. and/or M.D. scientists to apply for an assistant professorship. The department is seeking candidates with interests in receptor function, transmembrane signaling processes, and cellular control mechanisms, to complement ongoing research programs. Candidates with an established record of imaginative and independent research, and teaching experience, are particularly encouraged to apply. Curriculum vitae, representative reprints, statement of future research direction, and names and addresses of three references should be sent to: **Dr. J. D. Potter, Chairman, Department of Pharmacology, University of Miami, P.O. Box 016189, Miami, FL 33101. Equal Opportunity/Affirmative Action Employer.**

BIOCHEMIST: Research associate with interest in cell biology to conduct research project on the "Isolation and Characterization of the Factor(s) Involved in Protein Import into Mitochondria and Chloroplasts." Requires a Ph.D. in biochemistry, minimum 1 year of postdoctoral experience in receptor-ligand interactions essential. Familiarity with immunoassays desired. 40 hours per week, 9 to 6, Salary: \$22,127 per year. Mail résumé to: **New York State Job Service, JO Number NY8016021, 175 Remsen Street, 2nd Floor, Brooklyn, New York 11201.**

BIOCHEMIST-POSTDOCTORAL RESEARCH ASSOCIATE. Conduct research on biochemical mechanism of lignin degradation by fungi. Involves isolation and characterization of lignin-degrading enzymes and the study of their regulation and synthesis. Background with enzymes and Ph.D. in biochemistry required; experience in microbiological studies desired. Must be a U.S. citizen; 2-year term position. Salary: \$26,381 per year. Send curriculum vitae to: **Dr. T. K. Kirk, Forest Products Laboratory, One Gifford Pinchot Drive, Madison, WI 53705. Equal Opportunity Employer.**

POSITIONS OPEN

ASSOCIATE IN RESEARCH. A. W. Wright Nuclear Structure Laboratory. To evaluate and implement data for the MP-1 Tandem accelerator which is being converted into a 20MV Tandem accelerator. To analyze data in order to improve accelerator performance and to design the monitoring equipment, including pulsed electron diagnostics.

Requires a B.S. or equivalent degree in mathematics or physics, in addition to a thorough knowledge of general physics, mathematical analysis, including analysis of statistical data, as well as a thorough knowledge of complex variables and differential equations, including analysis of digital data. Full-time position with annual salary of \$20,000. Interested applicants should submit their résumés to: **Mr. Kenzo Sato, Yale University, A. W. Wright Nuclear Structure Laboratory, 272 Whitney Avenue, New Haven, CT 06511. Yale University is an Equal Opportunity/Affirmative Action Employer.**

BALL STATE UNIVERSITY MUNCIE, INDIANA

CELL/MOLECULAR BIOLOGIST

Tenure-track assistant professor, September 1986. Specific area open; prefer strength in teaching and research in molecular, cell, and/or regulatory biology. Earned doctorate and commitment to undergraduate teaching required. Applications considered until position filled. Send curriculum vitae, list of publications, letter of interest, and names of three references to: **Dr. Sidney L. Beck, Chairman, Department of Biology, Ball State University, Muncie, IN 47306.**

Ball State University practices Equal Opportunity in Education and Employment.

DIRECTOR, CLINICAL ATHEROSCLEROSIS RESEARCH PROGRAM

We are seeking candidates for the position of director of Clinical Atherosclerosis Research Division who have experience in either basic research, epidemiology, and/or lipid metabolism in addition to having a background and experience in clinical cardiovascular disease. Candidates must hold an M.D. degree and be recognized authorities in the field with a track record of contributions and funding. The director will participate in a multidisciplinary approach to the early detection and prevention of atherosclerosis vascular changes. Salary commensurate with qualifications. Please send a statement of research interests and a complete curriculum vitae to **Box 60, SCIENCE.**

CORNELL UNIVERSITY invites applications and nominations for **DIRECTOR, NEW YORK STATE AGRICULTURAL EXPERIMENT STATION, GENEVA, NEW YORK** associate director for research of the College of Agriculture and Life Sciences, Ithaca, New York. Responsibilities include leadership and administration of the station, involvement in the college's overall research and extension programs. Qualifications: (i) an earned doctorate in agricultural or the life sciences or appropriate discipline; (ii) demonstrated research and administrative accomplishments; (iii) ability to work effectively with faculty. Desirable to have a research background in one of the major disciplines emphasized at Geneva (entomology, food science and technology, horticulture, and plant pathology). Nominations and applications, including a résumé of professional experience and qualifications and names of three references, will be received until 1 June 1986. Applications should be addressed to: **Dr. N. R. Scott, Director for Research, CALS, Cornell University, 292 Roberts Hall, Ithaca, New York 14853.**

An Affirmative Action/Equal Opportunity Employer

LIPID METABOLISM/MOLECULAR GENETICS

A basic Cardiovascular Research Center with a multidisciplinary approach is seeking a scientist in the field of lipid metabolism and/or molecular genetics. The candidate must be a recognized authority in the field, hold a Ph.D., and/or M.D. degree, and have a track record of contributions and funding. The candidate will participate in a multidisciplinary approach to the early detection and prevention of atherosclerosis vascular changes. Salary commensurate with qualifications. Please send a statement of research interests and complete curriculum vitae to **Box 61, SCIENCE.**

Project Director Science Education Policy Studies

The American Association for the Advancement of Science (AAAS) seeks a director for its National Forum for School Science project. This project monitors the status and development of science education in grades K-12 and encourages the dissemination of analyses and practices that adapt school science to the nation's needs.

The Forum director will have direct responsibility for planning, developing, and conducting annual reviews of a particular aspect of school science. (In 1985, for example, the Forum focused on the supply, demand, and quality issues for science teachers). She or he will oversee the collection and assessment of current research and policy statements, the identification of important issues, the development and execution of a major national meeting to discuss these issues, and the publication in professional and popular presses of major findings, conclusions, and recommendations.

The successful candidate will have substantial knowledge and understanding of the research and policy issues attending precollege science education, together with experience managing a project of national scope. She or he must have a demonstrated ability to: direct an analytical program of substantial complexity; work with governmental agencies, other professional organizations, scientists, and science educators; plan and direct programmatic aspects of an annual meeting of several hundred participants; produce clear and cogent analyses, reports, and articles; supervise staff; and manage a project budget. The position requires an advanced degree in a relevant discipline, additional research experience, science teaching experience, and at least 2 years of experience in project management.

This position is a 2-year appointment with the possibility of continuation based on internal and external funding.

The AAAS is an Equal Opportunity, Affirmative Action Employer.

Please submit letter of application, résumé and salary requirements by April 18, 1986 to:

Carolyn Bell
Personnel Office
American Association for the Advancement of Science
1333 H Street, NW
Washington, DC 20005

NATIONAL SCIENCE FOUNDATION
Washington, D.C.

HEAD, OCEAN SCIENCES RESEARCH SECTION

The Division of Ocean Sciences is seeking qualified applicants for position of Head, Ocean Sciences Research Section. The Section includes programs in Biological Oceanography, Chemical Oceanography, Physical Oceanography, and Marine Geology and Geophysics. Appointment to this Senior Executive Service position may be on a career or a one- to three-year limited term basis with a salary ranging from \$61,296 (ES-1) to \$68,700 (ES-4).

Applicants must have a Ph.D. or equivalent professional experience in the ocean sciences; substantial research contributions and strong evidence of scholarship in ocean sciences or innovative leadership in research administration in this area; and ability to achieve organizational objectives through the supervision and management of subordinates.

Applicants should contact Margaret Cademartori on (202) 357-7857 (hearing impaired individuals may call TDD (202) 357-7492) to request Announcement EPS 86-1S (career appointment) or EPS 86-11S (limited term appointment) for complete qualification requirements and application procedures. Applications must be received by April 30, 1986.

Equal Opportunity Employer



**Agricultural
Research
Service**

**United States
Department of
Agriculture**

RESEARCH CHEMIST (IMMUNOLOGY)

FOOD SAFETY RESEARCH

WYNDMOOR, PA

ARS is seeking a Research Chemist who will be involved in developing poly and monoclonal and immunoaffinity, immunochemical and other clinical or biochemical methods to screen animal physiological fluids and tissues for drug residues. Candidate must have knowledge of and/or actual experience in human and/or animal drugs, drug metabolism, pharmacology, pharmacokinetics and physico-chemical isolation techniques. Ph.D. is desired. Must be a U.S. Citizen. Salary is commensurate with experience GS-11 (\$26,381) or GS-12 (\$31,619). For information on the research program/position, contact Dr. Donald W. Thayer, 215-233-6585. For information on application procedures/forms contact Susan Montgomery, 215-233-6573. Applications in response to this advertisement should be marked 6E030. Applications should be sent to: **Susan D. Montgomery, USDA, ARS, NAA, 600 East Mermaid Lane, Philadelphia, PA 19118.** Applications must be received by April 30, 1986.

ARS IS AN EQUAL OPPORTUNITY EMPLOYER. WOMEN AND MINORITIES ARE ENCOURAGED TO APPLY.

POSITIONS OPEN

CELL PHYSIOLOGIST: ASSISTANT PROFESSOR

The Department of Physiology at Jefferson Medical College, Philadelphia, Pennsylvania, seeks a full-time, 12-month faculty position for a cellular physiologist at the assistant professor level starting 1 September 1986. Excellent space and working conditions are available. Candidates should have a Ph.D. or M.D. degree and 2 to 3 years of relevant postdoctoral experience. Investigators in the area of platelet secretion, eicosanoid receptors, lipid metabolism in atherosclerosis, or some other area compatible with ischemia-shock research are preferred. Evidence of independent research and ability to develop grant applications are important. Applicants should send their curriculum vitae, including a statement of their research interests and experience, and arrange to have three letters of recommendation sent to: **Dr. Allan M. Lefer, Chairman, Department of Physiology, Jefferson Medical College, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107.** *An Equal Opportunity/Affirmative Action Employer.*

COMPARATIVE PHYSIOLOGIST OR NEUROBIOLOGIST. Tenure-track, 9-month position, assistant professor, effective 16 September 1986. Teaching duties in vertebrate physiology. Emphasis of both research and teaching. Ph.D. and postdoctoral experience required. Salary range, \$22,000 to \$25,000, dependent upon qualifications. Submit curriculum vitae, description of future research plans, and have four letters of recommendation postmarked by 1 May to: **Dr. Richard Petersen, Head, Department of Biology, Portland State University, P.O. Box 751, Portland, OR 97207.** *Portland State University is an Equal Opportunity/Affirmative Action Employer; qualified minorities, women, and other protected groups are encouraged to apply.*

EDUCATIONAL CONSULTANT Academic Doctorates in Any Field

Educational Consultants with any academic doctorate to provide instruction to surgeons in use of our small surgical bonework motor. Video and hands-on instruction provided for surgeons who use equipment with fresh butcher bones to simulate procedures. Executive level work mixed with menial chores associated with courses. Strong physical requirements. Approximately 60 days travel per year. Educational consultants are to be assigned to permanent instruction sites in New York, West Palm Beach, Chicago, and Anaheim. Additional sites are anticipated. Beginning salary \$35,000 to \$40,000 annually.

Send curriculum vitae, references, transcripts, and credit references to:

**Director of Education
Midas Rex Institute
3001 Race Street
Fort Worth, Texas 76111**

ELECTRON MICROSCOPE LABORATORY DIRECTOR. Duties include management of microscope facility, specimen preparation, thin sectioning, collaboration in research with faculty, and limited teaching. Bachelor's or M.S. preferred. Salary base \$21,000. Send letter of application, résumé, and three letters of reference to: **Dr. George M. Happ, Department of Zoology, University of Vermont, Burlington, VT 05405.** *An Equal Opportunity/Affirmative Action Employer.*

ENVIRONMENTAL CHEMIST

Envirosphere Company, a national environmental consulting firm, is seeking qualified candidates with the following background: advanced degree in chemistry, environmental engineering, or related field, 3 to 5 years of experience, have researched and published on aspects of the fate and transport of chemicals, especially organics in the environment. Experience with models simulating the chemical fate and transport of contaminants in surface and ground waters is desired; EXAMS, NPC, HSPF. Strong written, verbal communication skills are essential. Interested persons should submit letters of interest, résumé, and relevant publications. Salary dependent on qualifications. Comprehensive benefits package.

**ENVIROSPHERE COMPANY
10900 NE 8th Street
Bellevue, WA 98004**

Attention: M.H. Asaf
Equal Opportunity Employer, M/F/H/V.

POSITIONS OPEN

DEAN OF SCIENCE MEMORIAL UNIVERSITY OF NEWFOUNDLAND

A Dean is required to provide leadership to approximately 300 faculty members and 250 support staff. The faculty consists of eight departments: Mathematics and Statistics, Physics, Biology, Chemistry, Psychology, Biochemistry, Earth Sciences, and Computer Science; two interdisciplinary research units and a botanic park. The Dean of Science reports to the Vice-President (Academic). The successful applicant will be expected to assume the position on 1 September 1986, or at some mutually agreeable later date. Salary is negotiable. The closing date for applications is 14 May 1986. Apply in writing, giving the names of at least three referees, to: **Dr. David Kirby, Chairman, Dean of Science Search Committee, Memorial University of Newfoundland, St. John's, NF A1C 5S7.** Priority will be given to Canadian citizens and permanent residents of Canada.

DIRECTOR, SCHOOL OF HUMAN RESOURCES AND FAMILY STUDIES, COLLEGE OF AGRICULTURE, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

The director provides leadership to the school, a multidisciplinary unit of the College of Agriculture. Program areas include family and consumer economics, foods and nutrition, human development and family ecology, and textiles, apparel, and interior design. In each program area faculty participate in research, undergraduate and graduate teaching, extension, and public service activities. The school is composed of approximately 50 faculty supported by 18 nonacademic staff. It serves approximately 700 undergraduate majors and 100 M.S. and Ph.D. students at the University of Illinois, a land-grant institution.

The director has administrative and fiscal responsibility for the unit, establishes program priorities in consultation with the faculty, and provides strong leadership and support for the programs within the school. The director is the administrative representative of the school within the college and on campus. The director also serves as an advocate for the school with alumni, professional groups, and funding agencies.

Qualifications include Ph.D. or equivalent degree in field relevant to a program area of the school; demonstrated excellence in research, commensurate with rank of full professor at UIUC; strong leadership ability and interpersonal skills; demonstrated administrative ability; commitment to or experience in the multidisciplinary fields within the school; and understanding of and commitment to the land-grant mission. Salary is negotiable.

Starting date is 21 August 1986, or as agreed upon. In order to receive full consideration, letter of application, curriculum vitae, and names and addresses of four references must be received by 1 May. Direct applications to: **Professor Donald L. Uchtmann, Chair, Search Advisory Committee for Director of SHRFs, 305 Mumford Hall, 1301 West Gregory Drive, Urbana, IL 61801.** Telephone: 217-333-1846. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

Both the **Department of Neurology and Department of Medicine at Ohio State University in Columbus, Ohio**, are recruiting individuals with skills in genetics and molecular biology of genetic disorders. This recruitment reflects a new thrust by the College of Medicine in this area. We are seeking persons with **PH.D. AND/OR M.D. DEGREE FOR TENURE-TRACK POSITIONS.** Please contact: **Dr. George Paulson, 1655 Upham Drive, Columbus, OH 43210.**

IMMUNOLOGIST, PH.D.: Seeking senior scientist with extensive experience in hybridoma/monoclonal antibody development for use in cancer therapy. Also will require skills in vaccine preparation, lymphokine, and cell-mediated cytotoxicity therapy. Position open in southeast Florida with private medical organization that emphasizes immunotherapeutic approaches to cancer therapy. Please send résumé to: **Box 46, SCIENCE.**

POSITIONS OPEN

The Department of Physiology and Biophysics is seeking candidates for **THREE NEW FACULTY POSITIONS.** Applicants must have a doctoral degree and several years of postdoctoral experience, and should be prepared to carry out independent research and to participate in the teaching activities of the department. We will consider applicants in any area of physiology or biophysics, but will give preference to people who are studying molecular and cellular bases of organ-system function such as electrophysiology, membrane physiology, and cellular and molecular biology. Applicants must be able to teach mammalian physiology to graduate and health professional students, and to develop an advanced graduate level course in their area of interest. We plan to appoint tenure-track assistant professors, but will also consider applicants for appointment as tenured-associate and full professors. Applicants should send their curriculum vitae and **BIBLIOGRAPHY**, reprints of several recent papers, a statement of current research interests, and the names of three references to: **Dr. F. Loizzi, Chairman of Search Committee, Department of Physiology and Biophysics, University of Illinois College of Medicine at Chicago, P.O. Box 6698, Chicago, IL 60680.**

The University of Illinois is an Equal Opportunity Affirmative Action Employer

IMMUNOLOGY AND MOLECULAR BIOLOGY FACULTY POSITIONS

The **Department of Microbiology at the Medical College of Wisconsin** is expanding its programs in immunology and molecular biology and has three tenure-track faculty positions available.

IMMUNOLOGY. Two positions (assistant professor and associate professor) are available. Individuals with research interests in viral, transplantation, or tumor immunology are especially encouraged to apply. Opportunities exist for collaborative research with faculty in virology and in a new clinical transplantation program.

MOLECULAR BIOLOGY. One position (assistant professor or associate professor) is available. Preference will be given to individuals investigating molecular mechanisms of microbial pathogenesis. Research interests that complement current departmental research in the areas of microbial genetics and virology are particularly desirable.

Successful candidates for these positions are expected to establish vigorous, independent research programs, direct graduate students, and assist in the teaching of medical students. Initial funds for equipment and graduate student support are available from the institution and the Regional Cancer Center, which coordinates a large interdisciplinary research program involving other universities. Applicants should send résumé, brief statement of research interests, and names of three references by 15 May 1986 to: **Search Committee, Department of Microbiology, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226.** *Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION PROKARYOTIC MOLECULAR GENETICS

The **Department of Microbiology, Kansas University Medical Center**, is seeking candidates for a tenure-track faculty position with a starting date in the spring of 1987. Appointment is expected to be made at the assistant professor level although exceptional candidates will be considered at the associate professor level. The position will be filled by a candidate with a research interest in prokaryotic molecular genetics. The successful candidate is expected to develop/maintain a vigorous research program and participate in departmental teaching of graduate and medical students. This is an excellent opportunity to join a growing department committed to excellence in research and education.

Applicants should send curriculum vitae with a description of research interest and goals, recent reprints, and arrange to have three letters of reference sent to:

**Dr. Joe Lutkenhaus
Department of Microbiology
Kansas University Medical Center
39th and Rainbow Boulevard
Kansas City, KS 66103**

Open until filled, but not after 1 November 1986. *The University of Kansas Medical Center is an Equal Opportunity/Affirmative Action Employer.*

ROCKEFELLER FOUNDATION BIOTECHNOLOGY CAREER FELLOWSHIPS

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

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

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

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

EXCELLENCE IN RESEARCH AND COMPUTING

A record of achievement in scientific research, a broad understanding of the Life Sciences and Computer Technology coupled with a demonstrated commitment to making state-of-the-art computing effective in research—is required to lead a major long-term NIH-funded project and expand related activities.

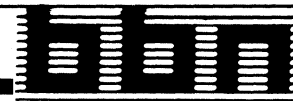
Your experience is most likely at the NIH/NSF Principal Investigator, Senior Group Leader or Department Head level with a PhD and Postdoctoral research in Computational Chemistry (e.g., Molecular Graphics, Modeling, Dynamics or Databases) or Biological Computing (e.g., Imaging, Modeling, Biostatistics, etc.). You should exhibit excellent leadership and communication skills and an ability to interact with our diverse sponsor and user base.

BBN Labs is a Cambridge, MA based high-tech R&D and consulting organization with an established history of technical excellence, financial strength and marked growth. We offer a competitive compensation package, excellent benefits including relocation and a superior profit sharing/retirement plan.

Please respond in writing to:

Francis DeLeo
BOLT BERANEK AND NEWMAN INC.
10 Fawcett Street
Cambridge MA 02238

An equal opportunity employer M/F/H/V



Pathologist Experimental Pathology

The Department of Experimental Pathology, Smith Kline & French Laboratories, located in suburban Philadelphia, Pennsylvania, is seeking an experienced Veterinary Pathologist who will be responsible for the investigation of pathological changes arising in drug toxicity studies with special emphasis on elucidating pathogenetic mechanisms. The position offers significant opportunity for multidisciplinary collaboration in drug discovery and development.

Candidates are required to have:

- a D.V.M. with a Ph.D. or equivalent training in Pathology.
- a proven record of scientific accomplishment as evidenced by significant publication record.
- ACVP eligibility/certification.
- experience in diagnostic and/or laboratory animal pathology.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your CV and names of three references to: Walter B. Flagg, Senior Employment Consultant, SmithKline Beckman Corporation, 1570 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

SK&F
A SmithKline Beckman Company

Membrane Electrophysiology

The Cardiovascular Diseases Research Unit of **The Upjohn Company**, located in Kalamazoo, Michigan, is seeking a talented associate in electrophysiology to conduct ion channel research. The successful candidate must have a B.S. or M.S. in a biomedical science and several years of laboratory bench experience with voltage and current clamping of single cells. Expertise is needed in the fabrication and use of ion-selective microelectrodes, suction and patch pipettes to monitor intracellular ion activities and ion conductions through membrane ion channels. Desirable qualifications include programming DEC computers for experiments in data analysis, knowledge of statistical analysis and drug channel interaction as evidenced by participation in scientific publications. This individual will be involved with basic research, drug development and have the opportunity for journal publications.

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

For confidential consideration, please call from outside of Michigan toll free 1/800/253-8600, ext. 3-6767, (inside Michigan call collect 616/323-6767) to request an employment application be sent to you immediately. Please refer to ad number 1711-A when calling.

Upjohn

A century of caring

An Equal Employment Opportunity Employer M/F

POSITIONS OPEN

FACULTY POSITION IN SPEECH SCIENCE. Ph.D. with interests in stuttering and speech motor control. Qualified candidates must have postdoctoral experience and demonstrate potential for developing and evaluating therapies in children and adults. Send curriculum vitae and the names and telephone numbers of three references to: **H.B. Nudelman Ph.D. Stuttering Center, Department of Neurology, Baylor College of Medicine (BCM), One Baylor Plaza, Houston, TX 77030.** BCM is an *Equal Opportunity/Affirmative Action Employer*.

FACULTY POSITION IN MEDICAL PHARMACOLOGY

Full-time position available 1 July 1986, at the **assistant or associate professor** level. Applicants should have an earned doctorate in medical pharmacology and at least 2 years of postdoctoral training. A major time commitment will involve teaching pharmacology to medical students. The successful candidate should have the potential to develop an independently funded research program. Participation in interdisciplinary projects involving geriatrics and/or diabetes is desirable. Applications including a letter of intent, curriculum vitae, a brief statement of research plans, and the names and addresses of three references should be sent to: **Marilyn R. Fenton, Ph.D., Department of Physiological Sciences, Pennsylvania College of Podiatric Medicine, Eighth at Race Street, Philadelphia, PA 19107.** An *Affirmative Action/Equal Opportunity Employer*.

NASA/Goddard Space Flight Center seeks applications for the position of **HEAD, GEOPHYSICS BRANCH, LABORATORY FOR TERRESTRIAL PHYSICS** (salary range \$44,430 to \$67,940). Principal research of the branch is in the study of geology and geobotany, geomagnetism, and quantitative geomorphology conducted through use of space-borne observations and technologies. Expertise and research experience at the Ph.D. level in geology or geophysics is desirable. Knowledge in the use of remote sensing and geopotential field observations is essential, as is evidence of leadership or management of research groups or programs. Background in numerical modeling and simulations techniques is preferred. Selectees will be expected to continue active individual research. Goddard provides a complete array of computational and research support activities and ample opportunity to interact with other research programs. Applicants send current résumé addressing the qualifications and updated curriculum vitae by 2 May 1986 to: **Personnel Services Branch/Code 225, Goddard Space Flight Center, Greenbelt, MD 20771.** For more information, contact **Shirley Smith, telephone: 301-344-7000.** *Equal Opportunity Employer.*

MATHEMATICAL GEOSCIENTIST WRIGHT STATE UNIVERSITY

The Department of Geological Sciences invites applications for a tenure-track position at the level of **assistant or associate professor** from individuals with primary expertise within the broad field of quantitative geology. The individual should have a strong mathematical and computer background and an interest in the application of numerical modeling to geophysical and/or geohydrological problems. The individual should also anticipate the development of courses dealing with the application of mathematics and mathematical modeling to geoscience problems. The applicant's specific field of research interest is open; however, he or she would be welcome to participate in current research programs. The position will be available September 1986 and will be filled as soon as possible after that date. Candidates are expected to have completed all requirements for the Ph.D. at the time of initial employment.

The department currently has 12 full-time faculty and strong M.S. program in geology, with concentration on exploration geophysics and applied geohydrology. Departmental computer facilities, analytical instrumentation, and field equipment to support research are outstanding. The new position is funded by an academic challenge grant that recognizes the excellence of our graduate program.

Send résumé and three letters of reference to: **Dr. Byron Kulander, Chairman, Search Committee, Department of Geological Sciences, 260 Brehm Laboratory, Wright State University, Dayton, Ohio 45435.**

Closing date for applications is 7 May 1986. *Wright State University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

PH.D. FIELD BIOLOGIST/ETHOLOGIST for tenure-track assistant professorship beginning 15 August 1986. Candidate should be broadly educated in vertebrate biology. Teaching duties will include ethology, ecology, and courses in the individual's specialty. Send résumé, a brief statement of professional goals, and the names and telephone numbers of three references by 15 April 1986 to: **Secretary, Biology Search Committee, Sangamon State University, Springfield, IL 62708.** *Sangamon State is a Senior Level/Masters University and an Equal Opportunity Employer.* **CORRECTED AD THAT WAS PREVIOUSLY PLACED IN 14 MARCH 1986 ISSUE.**

CELLULAR OR DEVELOPMENTAL MOLECULAR BIOLOGIST HEAD OF DEPARTMENT OF ANATOMICAL SCIENCES

The University of Illinois at Urbana-Champaign is committed to the development of strong programs of molecular approach in several areas of the biological sciences. We are currently seeking an active investigator interested in expanding a program of research in cellular or developmental molecular biology within the Department of Anatomical Sciences in the School of Life Sciences. It is anticipated that this individual will maintain a vigorous research program and will have the opportunity to expand the department significantly in the area of cellular or developmental molecular biology. Applicants must possess a Ph.D., M.D. or equivalent academic degree, and have qualifications appropriate to a tenured appointment at the full professor level. The position is available immediately with starting date negotiable. Salary is open and will be commensurate with qualifications. Applicants should send their curriculum vitae to:

**M. E. Reichmann
University of Illinois
393 Morrill Hall
505 South Goodwin Avenue
Urbana, IL 61801
Telephone: 217-333-3044**

Applications should be received by 15 May for full consideration. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

HORTICULTURE DEPARTMENT HEAD: Position responsible for the administration of programs in teaching, research, and extension associated with ornamentals, fruits, vegetables, turfgrass, and landscape design. The department consists of 14 faculty located in Lincoln and three faculty located at two off-campus research and extension centers. Requires Ph.D. in horticulture and evidence of significant accomplishments in teaching, research, extension, and/or industry. Send applications and nominations of candidates by 15 May to: **Dr. Terrence P. Riordan, Chair, Search Committee, 377 Plant Sciences, Department of Horticulture, University of Nebraska-Lincoln, Lincoln, Nebraska 68583-0724.** *Affirmative Action/Equal Opportunity Employer.*

MEDICAL FACULTY—Duke University Medical Center invites applications for a faculty level position in an expanding laboratory studying the control of gene expression in mammalian striated muscle. Applicants should hold the Ph.D. degree and have experience in recombinant DNA technology, mammalian cell culture, and/or gene transfection techniques. Interested applicants should submit résumés to: **Dr. R. Sanders Williams, Box 3945, Duke University Medical Center, Durham, NC 27710.** *An Affirmative Action/Equal Opportunity Employer.*

PH.D. IN MICROBIOLOGY OR IMMUNOLOGY. New York Medical College-Metropolitan Hospital Center, Department of Dermatology. Excellent laboratory space available. Salary and level of faculty appointment negotiable depending on experience. Send curriculum vitae to:

**William R. Levis, M.D.,
Professor of Dermatology,
Chief Section of Research,
Department of Dermatology,
New York Medical College-
Metropolitan Hospital Center,
1901 First Avenue, New York, NY 10029;
Telephone: 212-360-6678.**

POSITIONS OPEN

The University of Calgary MOLECULAR BIOLOGIST

Applications are invited for several molecular biologists to be associated with a newly established program in **Molecular Oncology** in the Faculty of Medicine, The University of Calgary. This program has clinical, pathological, and basic research components. The basic research component stresses the molecular approaches to the investigation of cancer. Applicants are expected to conduct independent research within the framework of the overall program objectives and should have specific expertise in one of the following areas: (i) regulation of gene expression in human neoplasms; (ii) molecular aspects of cellular differentiation and cytogenetics of human tumors. The positions will be funded, following successful competition for scholarship, from the Alberta Heritage Foundation for Medical Research. The candidates will be eligible to apply to the AHFMR for an Establishment Grant to cover the cost of setting up a new laboratory with major/minor equipment, and operating funds for an initial 2-year period. Applicants require an M.D. and/or Ph.D. and research training at the postdoctoral level. The applicants will be associated with the Growth and Development Research Group or Oncology Research Group and the Department of Pathology. Level of appointment and salary will be commensurate with experience and qualifications. The applicants are expected to devote approximately 75 percent of their time to research and the remaining 25 percent to activity related to the research field, including teaching. All qualified individuals are encouraged to apply, but preference will be given to Canadian citizens and permanent residents. Please submit current curriculum vitae, statement of research interests, and the names and addresses of three referees prior to 1 June 1986, to: **Dr. N. B. Rewcastle, Head, Department of Pathology, Faculty of Medicine, The University of Calgary, Calgary, Alberta, Canada T2N 2T9.**

MOLECULAR BIOLOGISTS

PERMANENT AND POSTDOCTORAL positions available to join group engaged in studies on gene regulation and biosynthesis of the early complement system proteins. Research projects will investigate mechanisms of gene expression, protein processing, and macromolecular structure-function relationships using site-directed mutagenesis. Candidates for permanent position should be well-versed in recombinant DNA technology. Salaries to be commensurate with experience and training. Applicants should forward curriculum vitae to: **Dr. John E. Mole, Department of Biochemistry, University of Massachusetts Medical Center, Worcester, MA 06105.**

NEUROBIOLOGIST—a tenure-track faculty position is open with rank appropriate to experience. Candidates must have a minimum of 2 years of postdoctoral experience. Teaching responsibilities are in neuroanatomy courses for medical, graduate, and allied health students. Candidates must have strong research in neurobiology which is funded or is clearly capable of being funded from extramural sources. Send curriculum vitae and names of three references to: **Dr. George B. Talbert, Department of Anatomy and Cell Biology, Box Number 5, Downstate Medical Center, State University of New York, 450 Clarkson Avenue, Brooklyn, NY 11203.** DMC Number 883. *Equal Opportunity/Affirmative Action Employer.*

PHYSICAL OCEANOGRAPHER: Search Extended. Old Dominion University's Department of Oceanography invites applications for a tenure-track faculty position in physical oceanography available fall 1986. Rank and salary will be commensurate with qualifications. Applicants must have an earned doctorate and a history of successful research efforts. Candidates should have an established record in physical oceanographic research; preferably with interest in theoretical aspects. The successful applicant is expected to continue sponsored research, supervise graduate students, and teach courses. Physical oceanography has been singled out by the university for special emphasis and we anticipate further growth in the area. Send résumé, names of three references, and a brief description of research interests by 21 April 1986 to: **Dr. Larry P. Atkinson, Physical Oceanography Search Committee, Department of Oceanography, Old Dominion University, Norfolk, VA 23508.** Telephone: 804-440-4285. *Old Dominion University, a state-supported institution, is an Affirmative Action/Equal Opportunity Institution.*

ASSISTANT PROFESSOR/ ASSOCIATE PROFESSOR DEPARTMENT OF BIOCHEMISTRY

The Department of Biochemistry of the University of Medicine and Dentistry of New Jersey—New Jersey Medical School, Newark, NJ, is seeking candidates for a faculty position at the Assistant or Associate Professor level. The position is available for the Fall 1986. Candidates should have training in biochemistry or cognate fields and have a minimum of 2 years of postdoctoral training. Candidates will be expected to conduct active, independent and funded research programs and participate in the teaching of medical, dental and graduate students.

Candidates with interests in membrane biochemistry, transmembrane signalling, immunochemistry or physical chemistry are preferred, but outstanding candidates with other research interests will be considered.

Interested candidates should submit their curriculum vitae and bibliography, a statement concerning research interests, three letters of recommendation supporting research and teaching ability, and reprints of most significant work by **June 30, 1986** to **Norbert I. Swislocki, Ph.D., Professor and Chairman, Department of Biochemistry, University of Medicine and Dentistry of New Jersey, New Jersey Medical School, 100 Bergen Street, Newark, NJ 07103.** An Equal Opportunity/Affirmative Action Employer m/f/h/v.

**University of Medicine
and Dentistry
of New Jersey**



Dean School of Veterinary Medicine

Applications and nominations are sought for the position of Dean of the School of Veterinary Medicine, University of Pennsylvania. Qualifications include administrative experience in a biomedical institution and evidence of dedication to excellence in veterinary medical education and scholarship. Letters of inquiry, application, and nomination should be accompanied, where possible, by a curriculum vitae. Correspondence should be sent to the following address, no later than May 31, 1986: Dr. Mark Haskins, Chairperson, Search Committee, c/o Robert G. Lorndale, Associate Secretary, University of Pennsylvania, 121 College Hall, Philadelphia, PA 19104-6382. The University is an Equal Opportunity, Affirmative Action Employer.

University of Pennsylvania

Molecular Genetics Medical Staff Fellowship National Institutes of Health

The Molecular Genetics Section of the Genetics and Biochemistry Branch, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, National Institutes of Health, is offering a Medical Staff Fellowship in Molecular Genetics. Applications are invited from individuals of the highest caliber with the M.D. or M.D., Ph.D. degrees. Applicants should have two years of clinical experience and research experience is preferred. Applications are being accepted now for appointments which begin July 1987 or earlier. The appointment is for two years and there is a possibility of extension of the appointment for a third year. Medical Staff Fellows receive an initial salary of \$30,000, with increments of \$2,000 per year.

The Medical Staff Fellow may participate in the NIH Interinstitute Medical Genetics Program as well as carry out research in basic molecular genetics involving recombinant DNA

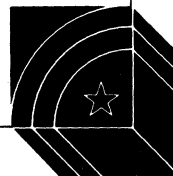
techniques and DNA-mediated gene transfer into eukaryotic cells. The research in the Section includes work on a human and other eukaryotic recombinases and the study of immunoglobulin rearrangements.

Interested candidates should submit their curriculum vitae and the name of three references to:

Dr. R. Daniel Camerini-Otero
Chief, Genetics and Biochemistry Branch
National Institute of Arthritis, Diabetes,
and Digestive and Kidney Diseases
Building 10, Room 9D-15
National Institutes of Health
Bethesda, Maryland 20892



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POSITIONS OPEN

MOLECULAR GENETICIST

Wright State University invites applications for a tenure-track position at the assistant professor level from outstanding individuals experienced in the application of recombinant DNA methods to investigations in cell biology. The successful candidate is expected to develop a strong, independent research program and have a commitment to teaching at the graduate level. While appointment will be in the Biological Sciences Department or in a related life sciences department, the individual will interact with an interdepartmental group of scientists in the College of Science and Engineering and the School of Medicine using molecular genetics in their research. This position is funded by an award to the Biomedical Sciences Ph.D. Program for the enhancement of excellence in research and instruction in recombinant DNA methodology. Candidates must have a Ph.D. degree and postdoctoral training in a relevant area. Applicants should send curriculum vitae, a detailed research plan, and the names of at least three references by 30 April 1986 to:

Dr. G. J. Kantor
Department of Biological Sciences
Wright State University
Dayton, OH 45435

Wright State is an Equal Opportunity/Affirmative Action Employer.

University of California, Los Angeles Mental Retardation Research Center, Neurophysiology and Neuroanatomy Group. There will be a vacancy in the Mental Retardation Research Center for a **NEUROPHYSIOLOGIST** and/or **NEUROANATOMIST** at the full professor level. The individual selected should have a first-rate research record, strong current extramural competitive grant funding, and the ability to interact with scientific colleagues at a senior level. We are looking for a scientist whose main interests are in development of the mammalian central nervous system. Laboratory space, setup funds, and excellent university salary and benefits are available. The successful candidate must assume the position by 1 July 1987. Write with names of three references to:

Dr. N. Buchwald
Mental Retardation Research Center
Neuropsychiatric Institute, UCLA
760 Westwood Plaza, Los Angeles, CA 90024

UCLA is an Equal Opportunity/Affirmative Action Employer.

PEPTIDE AND PROTEIN RESEARCH. Positions available immediately for Ph.D. with background in one of these three areas: biochemistry (purification, enzyme kinetics), synthesis (solid-phase peptide synthesis), and immunology (monoclonal antibodies and assays) in our program on oncogene-product research. Send résumé to: **Dr. James Tam, Box 294, Rockefeller University, 1230 York Avenue, New York, NY 10021.** *Equal Employment Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE. Position open for 2 years beginning July to September 1986 for research on morphology and behavioral physiology of motor neurons and interneurons in collaboration with **Lloyd L. Glenn, Ph.D.** Background in neurophysiology, neuroanatomy, or electrical engineering preferred. Ph.D. or equivalent required. Salary: \$18,000 per year, plus benefits and excellent working conditions. Submit curriculum vitae and names of three references to: **Cecelia A. Wylie, Ohio College of Podiatric Medicine, 10515 Carnegie Avenue, Cleveland, Ohio 44106.**

Equal Opportunity Employer

POSTDOCTORAL POSITIONS IN CANCER RESEARCH. Successful candidates will join an interdisciplinary research program emphasizing mechanisms of carcinogenesis by radiation, chemicals, and retroviruses and related areas such as molecular genetics, DNA repair, membranes, tumor immunology, and regulation of gene expression. Beginning salary is \$22,000; U.S. citizenship or permanent residency is required. Persons soon to be awarded or holding recent Ph.D., M.D., or D.V.M. degrees are invited to write for information to: **Training Office, University of Tennessee Oak Ridge Graduate School of Biomedical Sciences, Biology Division, P.O. Box Y, Oak Ridge National Laboratory, Oak Ridge, TN 37831.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

PARASITOLOGIST/ IMMUNOPARASITOLOGIST

The Department of Veterinary Pathobiology of the College of Veterinary Medicine at the University of Illinois invites applicants for a tenure-track assistant professorship in the area of hemotropic diseases. The successful candidate should have an interest in the host response by vertebrates to infections by hemoparasites and novel approaches to the study of these parasites. The individual should have a Ph.D. with a strong research background in immunology, microbiology, and/or molecular biology. Opportunities exist for collaborative research in ongoing programs within the department in hemotropic diseases. It is expected that the successful candidate will also establish a competitive, independent research program. The appointee will be eligible for an appointment in the university Biotechnology Center.

The position also involves a contribution to the college professional and/or graduate teaching programs in the applicant's area of expertise. Salary is competitive and negotiable, based upon experience and qualifications. Applications will be accepted until 31 May 1986, or until an acceptable candidate is identified. Send résumé and three letters of reference to: **Peter J. Felsburg, Department of Veterinary Pathobiology, College of Veterinary Medicine, University of Illinois, 2001 South Lincoln Avenue, Urbana, Illinois 61801; telephone: 217-333-8302.**

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

POSTDOCTORAL FELLOW—available 1 April 1986 to study intracellular ion regulation in heart cells using micro- and spectrofluorometric and spectroscopic methods. Experience in ion transport and/or photobiology required. Applicants must be eligible for NRSA. Send curriculum vitae, statement of research experience, and names of three references to: **Mel Lieberman, Department of Physiology, Duke University Medical Center, Box 3709, Durham, NC 27710.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE position available immediately in research on the structure and metabolism of plasma lipoproteins and the cell biology of atherosclerosis. Background in biochemistry, cell biology, or molecular biology. Send curriculum vitae to: **Dr. Alan Tall, Department of Medicine, Columbia University, 630 West 168 Street, New York, NY 10032**

POSTDOCTORAL POSITION BIOCHEMISTRY/PHARMACOLOGY. The Laboratory of Experimental Oncology, College of Veterinary Medicine, University of Tennessee has an immediate opening for an individual with a recent Ph.D. in biochemistry/pharmacology or related area. The successful candidate will be working with a multidisciplinary research group on mechanisms of nitrosamine induced respiratory tract carcinogenesis using whole animal and in vitro systems. Hands-on experience in HPLC, in vitro techniques, and assays pertinent to enzyme mediated drug metabolism required. Starting salary: \$18,000/annum with full faculty benefits. Salary increase negotiable pending on grant support and performance. Contact: **Dr. H. M. Schuller, College of Veterinary Medicine, University of Tennessee, P.O. Box 1071, Knoxville, TN 37901-1071.**

The University of Tennessee Institute of Agriculture is an Equal Opportunity/Affirmative Action, Title XI, Section 504 Employer.

POSTDOCTORAL POSITION available 1 September 1986 for an individual to study neuroanatomy, transmitter expression, and cell-specific markers in the developing and adult vertebrate olfactory system. Additional research involvement may include experiments on neurogenesis in the adult vertebrate brain. Techniques employed in this research include light and electron microscopy, immunocytochemistry, lectin binding, autoradiography, pathway tracing, and monoclonal antibody production and screening. Send curriculum vitae, statement of research experience and interests, and names of three references, by 1 May 1986 to: **G. D. Burd, Department of Molecular and Cellular Biology, BioSciences West, University of Arizona, Tucson, AZ 85721.** *The University of Arizona is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS. Two postdoctoral (research associate) positions are available 1 June 1986, for individuals with experience in protein purification to investigate hormonal regulation of gene expression in normal and neoplastic cells. Opportunity to gain experience with monoclonal antibodies, molecular cloning, hybridization, sequencing, or gene transfection into cultured eukaryotic cells. Salary commensurate with experience. Applicants should send curriculum vitae and names of three references to: **Craig W. Beattie, Ph.D., Division of Surgical Oncology, University of Illinois, 840 South Wood Street, Chicago, IL 60612.** *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available summer 1986 for well-established studies of cellular morphology and function in the hippocampal formation following long-term ethanol exposure. Laboratory utilizes an interdisciplinary approach involving morphological, physiological, and biochemical techniques. Preference will be accorded applicants with a Ph.D. in neurosciences and a strong background in electrophysiology, the in vitro hippocampal slice, and laboratory computer instrumentation. Curriculum vitae and names of three references should be sent to: **Drs. Don W. Walker/Bruce E. Hunter, Department of Neuroscience, JHMC Box J-244, University of Florida, Gainesville, FL 32610.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION—Recent Ph.D. to study molecular mechanisms of transcription and its developmental regulation in eukaryotes. (PNAS 82, 8004) protein purification/characterization and recombinant DNA experience desirable. Details on request. Send résumé and three reference letters to: **Marvin Paule, Biochemistry, Colorado State University (CSU), Ft. Collins, CO 80523.** *CSU is an Equal Opportunity/Affirmative Action Employer.* Employment Office: 314 Student Services Building.

POSTDOCTORAL POSITIONS

Postdoctoral training is available in molecular, cellular, and nutritional aspects of carcinogenesis in the Eppley Institute for Research in Cancer and Allied Diseases of The University of Nebraska Medical Center. Research programs include for example: Chemistry of formation and metabolism of nitrosamines, nitrosamines and hydrazines; mechanisms of carcinogenesis of polycyclic hydrocarbons and other carcinogens; lymphomagenesis; cell differentiation; and growth factors; biochemical genetics particularly as it relates to susceptibility and resistance to cancer development; mutagenesis and DNA repair; molecular biology of cancer; viruses and cell immortalization and transformation; toxicology of food additives; and oncogenes and cancer. The Eppley Institute is well equipped for both in vitro and in vivo work. Post-doctoral applicants should have a Ph.D. in chemistry, biochemistry, micro-biology, pharmacology, or related disciplines. Stipends are competitive. Please submit curriculum vitae, three letters of recommendation, and summary of research interests to: **Dr. Edward Bresnick, Director, Eppley Institute for Research in Cancer and Allied Diseases, University of Nebraska Medical Center, Omaha, NE 68105.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately to study the effects of post-synthetic modifications on enzyme function and regulation. Experience in protein purification, enzyme mechanisms and control, and methodologies used in protein structure analysis desirable. Salary commensurate with experience. Send curriculum vitae and three letters of recommendation to: **Dr. Ari Gafni, Institute of Gerontology, University of Michigan, 300 North Ingalls, Ann Arbor, Michigan 48109.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available in NIH-funded study of parallel processing by brainstem systems controlling spinal cord motor functions. Project involves single cell neurophysiology, neuroanatomy based upon HRP backfills, and automatic computerized analysis of motor patterns. Salary, \$20,000. Send curriculum vitae and references to: **Dr. Robert C. Eaton, Campus Box 334, University of Colorado, Boulder, CO 80309.** *The University of Colorado, Boulder is an Affirmative Action Equal Opportunity Employer.*

BIO-MEDICAL

IMMUNOLOGY/ VIROLOGY FELLOWSHIP

E.N.I. is seeking a post-doctoral Fellow with experience in the purification, isolation and characterization of membrane glycoproteins.

Background in Virology, Immunology and/or Bio-Chemistry desirable. Recent grads with appropriate qualifications are invited to send their C.V. to: GALE LININGER, at:



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The Research Division of W. R. Grace & Co., a top Fortune 100 company and the world's largest specialty chemical manufacturer, has exceptional opportunities in research at its Biomedical and Membrane Research Department located in Lexington, Massachusetts.

BIOMEDICAL RESEARCH ENGINEER/CHEMIST: Supervise the R&D efforts in the design and evaluation of hollow fiber based medical devices. Requires Ph.D. in Biomedical or Biochemical Engineering, or Biochemistry with some experience in mammalian cell culture systems.

RESEARCH CHEMIST/ENGINEER: Conduct research to better understand the binding kinetics and transport properties of immobilized biochemical reactors. Requires Ph.D. in Biochemistry or Engineering with 1-3 years of experience in immobilized biochemicals or enzymes.

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PH.D./M.S. SCIENTISTS

LONDON DIAGNOSTICS, INC., the leader in the application of novel chemiluminescent reactions to the detection of clinically important analytes has immediate openings for Ph.D. or M.S. level scientists in the following areas:

PHYSICAL BIOCHEMIST/IMMUNOCHEMIST - To work on the development of novel solid phases for immunoassays and DNA-probe assays. An extensive knowledge of the application of solid phase assays to clinically important antigens, proteins and drugs is an added advantage.

IMMUNOCHEMIST - To develop a proprietary novel detection method and its application to clinically significant analytes. Experience of enzyme immunoassays or ELISA techniques is necessary, as is an extensive knowledge of clinical diagnostics.

BIOCHEMIST - With experience of DNA-probe based assays. The successful candidate will have knowledge of the application of non-radioactive detection methods to the detection of nucleic acids from viral, bacterial or other biological material.

London Diagnostics, Inc. is located in the western suburbs of Minneapolis. We offer scientific stimulus, competitive salaries, a stock option plan and an ideal Midwestern location. Please send resumes with salary history, in strictest confidence, to Ms. A. Mosley, London Diagnostics, Inc., 10701 Red Circle Drive, Minnetonka, MN, 55343

LONDON DIAGNOSTICS

POSITIONS AVAILABLE

The International Laboratory for Research on Animal Diseases (ILRAD), Nairobi, Kenya is an internationally funded, major institution with the mandate of developing improved methods of control for important diseases of livestock. At present the diseases under study are trypanosomiasis and theileriosis. The multidisciplinary research program includes biochemistry, molecular biology, immunology, cell biology, pathology, parasitology, electron microscopy and entomology with appropriate supporting units. Applications are invited for the following Scientist positions.

SC/86/4—Immunopathologist

An experienced immunopathologist to join the Laboratory's basic research programs on the mechanisms of acquired and innate resistance to African pathogenic trypanosomes in domestic livestock and wildlife. The successful candidate will develop a research program to identify host immunological and pathological mechanisms which relate to resistance or susceptibility to trypanosomiasis. Candidates will have at least 5 years post doctoral experience in relevant areas of the immunology or immunopathology of infectious disease, an interest in host-parasite interactions, and will have demonstrated the ability to develop and lead an independent research program. Prior experience of research in parasitic diseases, especially those of domestic ruminants will be advantageous.

SC/86/5—Immunologist

An immunologist to join the Laboratory's basic research program on the immune system of ruminants and apply current immunological knowledge to analyse the structure and function of the ruminant immune system especially as related to the induction and control of specific responses to parasite antigens. Candidates will have at least 5 years post-doctoral experience in relevant areas of immunology research, an interest in vaccine development, and will have demonstrated the ability to develop and lead an independent research program. Prior experience of research in ruminant immunology or immunity to parasitic diseases will be advantageous.

These are International Staff Positions at Core Scientist level and the salaries will be paid in US Dollars. Initial salary will be determined by qualification and experience. Core Scientist positions are regarded as career appointments and are currently based on contracts renewable at 2 year intervals. Moving, housing, commutation and education allowances are paid and there are medical and retirement benefits. Applicants should include current curriculum vitae and the names and addresses of three referees. Applications, citing the position reference number, should be sent by April 25th, 1986 to:

The Chief Personnel Officer
ILRAD
P.O. Box 30709
Nairobi, Kenya

POSITIONS OPEN

POSTDOCTORAL POSITIONS in cell physiology and/or biochemistry are available to work on vascular mechanisms of blood pressure control. Experience in vascular smooth muscle physiology/biochemistry, cellular Ca^{2+} metabolism, and membrane transport would be preferred. Send curriculum vitae and names of three references to: **Dr. Richard Bukoski, Division of Nephrology and Hypertension, Department of Medicine, Oregon Health Sciences University (OHSU), 3181 SW Sam Jackson Park Road, Portland, Oregon 97201. OHSU is an Equal Opportunity Employer.**

POSTDOCTORAL POSITION available 1 June 1986 for a Ph.D. plant biochemist/physiologist. Project involves molecular and biochemical analysis of the hormonal control of plant cell proliferation. Support guaranteed for 18 months, with additional years possible. Send curriculum vitae and names of three references to: **Dr. Andrew Binns, 514 Goddard Laboratories—6017, Department of Biology, University of Pennsylvania, Philadelphia, PA 19104.**

POSTDOCTORAL POSITION available June/July 1986 in the In Vitro Fertilization Program of the Brigham and Women's Hospital, Harvard Medical School. Background in cell/embryo culture, reproductive biology, molecular biology, or sperm physiology preferred. In addition to involvement in IVF laboratory, opportunities exist for research in early embryo development, retrovirus expression in male and female reproductive tracts, and/or sperm physiology and function. Send curriculum vitae, statement of research interests, and names and addresses of three references to: **Dr. Ann Kiessling, Department of Obstetrics and Gynecology, Room 208, Seeley G. Mudd Building, 250 Longwood Avenue, Boston, MA 02115.**

POSTDOCTORAL POSITION: NIH-funded position available immediately to study regeneration and modulation of C-MYC expression in malignant and nonmalignant cells. Experience in recombinant DNA preferred. Applications and curriculum vitae should be sent to: **Dr. Donald M. Miller, Department of Medicine and Biochemistry, Comprehensive Cancer, University of Alabama at Birmingham, Basic Health Science Building, Room 288, Birmingham, AL 35294. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE

Hormonal Regulation of Arachidonic Acid Metabolism. Opportunity available immediately as part of a multidisciplinary collaboration in endocrinology, cell biology, arachidonic acid metabolism, and lipid chemistry to study regulation of eicosanoid (especially prostacyclin) production by the isolated adipocyte and related cells (for example 3T3-L1 cells) and derangements in diabetes. Adipocytes produce prostacyclin by two separate mechanisms. Production is exquisitely sensitive to hormones including insulin, glucocorticoids, catecholamines, and vasoactive peptides. Candidates should have experience in cell biology, HPLC, and RIA. Send letter describing interests, curriculum vitae, and three or more references to: **Dr. Lloyd Axelrod, Diabetes Unit, Massachusetts General Hospital, Boston, MA 02114.**

RESEARCH ASSISTANT in obstetrics/gynecology, M.S. in analytical chemistry or chemical engineering, and 3 years laboratory experience required. Pesticide and hormonal analysis and tissue culture experience; ability to work well individually and in a team setting. Knowledge of one foreign language preferred. Annual salary: \$15,000 to \$17,000, 40 hours per week. Submit curriculum vitae to: **Division of Employment Security, 421 East Dunklin Street, Jefferson City, MO, 65104, Attention: John Scott, Reference J.O. number 403863. Equal Opportunity/Affirmative Action Employer.**

SPECTROMETER TECHNICIAN in the geochemistry-petrology group of the Department of Geology, Miami University. The successful candidate will have an advanced degree in the physical sciences and will assist in operation and maintenance of a solid-source mass spectrometer and a direct-current argon plasma spectrometer and associated chemical laboratories. Twelve-month salary is \$24,000. Apply by 1 June 1986, with letter of application, résumé, and three letters of recommendation to: **Norman Grant, Department of Geology, Miami University, Oxford, Ohio 45056. Telephone: 513-529-4729.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS—Two positions in biochemical toxicology are available immediately for NIH-funded studies on the toxicity and metabolism of benzene in bone marrow cultures, the role of peroxidase in benzene metabolism in marrow macrophages, and the effects of benzene on the production of growth factors for hematopoiesis. Send curriculum vitae, a letter describing interests, and names and addresses of three references to: **Dr. George F. Kalf, Department of Biochemistry, Jefferson Medical College of Thomas Jefferson University, 11th and Walnut Streets, Philadelphia, PA 19107. Equal Opportunity/Affirmative Action Employer. Minorities and women are urged to apply.**

POSTDOCTORAL RESEARCH POSITION available in 1986. Ph.D. in molecular biology to study control of Cachectin/Tumor Necrosis Factor production. Applicant must have training in biochemistry/molecular biology. Experience with recombinant DNA technology, including the construction and screening of cDNA libraries is desirable. Submit curriculum vitae and three references to: **Anthony Cerami, Ph.D., Laboratory of Medical Biochemistry, The Rockefeller University, 1230 York Avenue, New York, NY 10021.**

POSTDOCTORAL RESEARCH POSITION

**Biophysical Chemistry Laboratory
Shriners Hospital for Crippled Children
3101 SW Sam Jackson Park Road
Portland, Oregon 97201**

Postdoctoral research position available 1 July 1986 for recent Ph.D. to investigate structure and function of connective tissue macromolecules. Strong biophysical chemistry background with experience in instrumental analysis (spectroscopy, analytical culture centrifugation, and so forth) required. Salary approximately \$22,000 per year for up to 3 years. Please send applications with curriculum vitae, list of publications, and three letters of recommendation to: **Dr. Hans Peter Bachinger at the above address.**

RADIOCHEMIST/RADIOPHARMACOLOGIST

The Physiology Department at the **Armed Forces Radiobiology Research Institute (AFRRI)** is currently seeking candidates for a position in radiochemistry/radiopharmacology to conduct animal research on the ionizing radiation-induced pathophysiology of organ systems. This institute, a command of the Defense Nuclear Agency, is the principal radiobiology research laboratory for the Department of Defense. The Physiology Department studies the physiological and biophysical mechanisms of radiation insult to cellular, organ, and whole animal systems. The Physiology Department is also interested in the interaction between chemical or pharmacological factors and the physiological response to radiation. In addition to planning and conducting independent research, the successful applicant will train scientists and technicians in nuclear medicine and radioisotope techniques. The candidate should have a strong publication record, as well as independent research experience beyond the doctoral level. This position is available immediately and has a salary range from \$30,000 to \$40,000. To apply for this 4-year term civil service position, send application including SF-171, curriculum vitae, and reprints of representative published research to: **The Armed Forces Radiobiology Research Institute, Civilian Personnel Office, Bethesda, Maryland 20814-5145, by 30 April 1986. Reference Announcement Number 108/85A. Direct inquiries to: Dr. David R. Livengood, Department Chairman; 202-295-1212, or Mr. Vince Ackermann, Personnel Specialist; telephone: 202-295-1426. The AFRRI is an Equal Opportunity Employer.**

REPRODUCTIVE PHYSIOLOGIST/ EMBRYOLOGIST

We require a senior scientist (Ph.D.) preferably with experience in human in vitro fertilization to direct our IVF laboratory. Expertise in embryo culture is desirable. Experience in related fields such as tissue culture will be considered.

Salary will be negotiable and related to the experience of candidates. Please forward curriculum vitae with three references to: **Doreen Fanning, Administrative Director, Northridge Hospital Medical Center, 18300 Roscoe Boulevard, Northridge, California 91328.**

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR OF BIOCHEMISTRY. Nontenure-track position involving collaboration with research projects in the areas of connective tissue biochemistry, control of collagen synthesis, and mineralization. Requires Ph.D. (area of molecular biology) and dental degree with periodontal specialty training. Expected to obtain independent funding to maintain position. Send curriculum vitae, letter indicating research interests, and names of three references to: **Daniel Malamud, Department of Biochemistry, University of Pennsylvania School of Dental Medicine, Philadelphia, PA 19104. University of Pennsylvania is an Equal Opportunity Employer—Applications from females and minorities is particularly encouraged.**

RESEARCH ASSISTANT PROFESSORSHIP IN RENAL CELLULAR FUNCTION AND TRANSPORT AT WAKE FOREST UNIVERSITY WINSTON-SALEM, NORTH CAROLINA

Academically oriented holders of D.V.M., M.D., or Ph.D. degrees may apply for tenure-track research position associated with an institutional research program in atherosclerosis. Candidates will have the responsibility for development and supervision of a related research program with orientation to renal disease. Candidate should have knowledge and technical expertise in the fields of enzymology, lipid biochemistry, membrane biophysics, and cell biology. Current emphasis is directed toward mapping of enzymatic and mineral metabolism using various techniques including cell and tissue culture, monoclonal antibody localization of differentiation-dependent antigens, and localization of intracellular ions using ion-specific electrodes. Candidate should be able to demonstrate a strong research background and commitment to a research career. Salary dependent on background and experience. Applicants should send curriculum vitae and the names and addresses of three references to: **Carol C. Cunningham, Ph.D., Professor of Biochemistry, Chairman of Search Committee, Bowman Gray School of Medicine, Wake Forest University, 300 South Hawthorne Road, Winston-Salem, NC 27103. Wake Forest University is an Equal Opportunity Affirmative Action Employer.**

RESEARCH ASSOCIATE

Applications are invited for a research associate position which involves the development of positron-emitting long chain fatty acids as noninvasive probes of myocardial metabolism. Overall program involves organic synthesis; radiochemical synthesis; perfusion of isolated rat hearts; biochemical/pharmacological investigation of metabolism; acquisition of tissue radioactivity-time curves with external scintillation detectors; and compartmental analysis and physiological modeling. Ph.D.'s with expertise or interest in two or more of these aspects are invited to submit résumés to:

**John Gately, Ph.D.
Department of Radiology/FMI Box 433
The University of Chicago
5841 South Maryland Avenue
Chicago, Illinois 60637**

Affirmative Action/Equal Opportunity Employer

RESEARCH ASSOCIATE with expertise in biochemistry or molecular biology to participate in a program of malaria research. Salary negotiable. Send curriculum vitae and references to:

**Dr. A. Kilejian
Public Health Research Institute
455 First Avenue
New York, NY 10016**

RESEARCH ASSOCIATE INSTRUCTOR: Viral immunologist with at least 2 years of postdoctoral experience to work on virus-induced disease of fat tissue. Expertise in immunological cytotoxicity assays, pathology of the fat and virus infections in mice, especially with vaccinia and lymphocytic choriomeningitis virus. Individual should have 2 years of teaching experience in microbiology laboratory and 5 or more first-authored viral immunology research publications in referred journals. 40 hours per week. Salary to \$23,000 per year.

Send résumé to: **Case Number 6250, Division of Employment Security, Charles F. Hurley, Employment Security Building, Government Center, Boston, MA 02114.**

An Affirmative Action/Equal Opportunity Employer.



**International Crops Research Institute
for the Semi-Arid Tropics (ICRISAT)**

is seeking a

PRINCIPAL AGROFORESTER

at ICRISAT Sahelian Center, Niamey, Niger

Job objectives: To conduct research and training in Agroforestry, in close cooperation with scientists of other disciplines, to improve the management and conservation of natural resources in farming systems and increase agricultural production and productivity; to develop methods for evaluating agroforestry technologies in the Sahel; and to screen tree and shrub species of potential use in AF systems with emphasis on multipurpose trees.

The candidate will be required to conduct research on interactions between crops and associated trees and their mutual impact on the productivity of the system, to integrate woody perennials in the land production, and to help the rehabilitation of environments through microclimatic amelioration and nutrient cycling. He will collaborate with existing networks and projects in West Africa.

Qualifications: A Ph.D. in an agricultural discipline or agroforestry, with 5 years' research experience in a relevant field, and competence in English are essential. Knowledge of French is desirable. The position will require frequent travel in the region.

Salary is at Principal Staff level, according to qualifications and experience. The position will be initially for 3 years, with possibility of extension.

The post is located at the ICRISAT Sahelian Center near Niamey, Niger, which is the regional headquarters for ICRISAT's West African programs. Niamey, the capital of Niger, has good living conditions, international airline connections, and educational facilities for children in French and English.

Send resume and names and addresses of three references within 60 days of the date of advertisement to **Director General, ICRISAT, Patancheru, Andhra Pradesh 502 324, India.**

POSTDOCTORAL ASSOCIATE

Individual with a Ph.D. or M.D. with experience in biochemistry or enzymology to work on developing an enzymatic system for removing low-density lipoprotein (LDL) for potential treatment of hypercholesterolemia.

PLEASE SEND CV and NAMES OF REFERENCES TO:

PROFESSOR ROBERT LANGER
Department of Applied
Biological Sciences
Massachusetts Institute of Technology
77 Massachusetts Avenue (E25-342)
Cambridge, MA 02139

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employer.

MIT

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

ASSOCIATE DIRECTOR FOR DISEASE PREVENTION, OFFICE OF THE DIRECTOR, NIH

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

The Associate Director for Disease Prevention provides overall leadership on all matters relating to the improvement of the nation's health through research, research training and the exchange of knowledge as these activities relate to disease prevention, nutrition, and medical applications of research.

In addition, this position has the overall responsibility for facilitating, coordinating, reviewing, and developing common guidelines for activities of the NIH and external organizations relating to the effective and practical application and transfer of new knowledge pertinent to disease prevention, nutrition, and clinically-relevant NIH research programs.

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

Professional: (1) meet the minimum educational requirements for Health Scientist administrator, GS-601, or Medical Officer, GS-602, (or equivalent combination of experience and training) as defined by U.S. Office of Personnel Management Handbook, X-118, Qualification Standards for Position under the General Schedule; (2) have training or work experience at a senior level (GS-15 or equivalent) in disease prevention, health maintenance, public health, or biomedical science; (3) have demonstrated accomplishments in health-related research achieved a position of stature as a leader and administrator.

Managerial: Experience in leadership positions that has demonstrated competence in (1) assuring that key national and agency goals, priorities, and values are considered in making program decisions; (2) establishing

effective external communications and relationships by being a representative spokesperson for the organization, and maintaining working relationships within the organization and with outside key individuals and organizations. (3) establishing program policy goals, and the structure and processes necessary to carry them out, including setting goals, objectives and priorities, and organizing the work structure and operations; (4) obtaining and allocating the fiscal and material resources necessary to support program or policy implementation, including managing the budgetary process; (5) developing processes and overseeing activities to assure that people are appropriately employed, effectively and efficiently utilized, developed, and dealt with in a fair and equitable manner; (6) installing evaluation processes to assure that programs and policies are being executed, adjusted as necessary, and that the appropriate results are being achieved.

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

Further information about the position and qualification requirements may be obtained by calling Helen C. Stafford at (301) 496-4197. Applications (SF-171, Personal Qualifications Statement) accompanied by a current curriculum vitae and bibliography should be submitted to Helen C. Stafford, Executive Secretary, Search Committee for Associate Director for Disease Prevention, National Institutes of Health, Shannon Building, Room 19, Bethesda, Maryland 20892. Applications from women and/or minority group members are especially solicited.

Opening Date: April 1, 1986
Closing Date: April 30, 1986

(All applications must be postmarked before closing date)

AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

RESEARCH ASSOCIATE/NEUROSCIENCE

Position in established laboratory to study neurochemistry of peripheral and central auditory processes. Experience in biochemistry of receptor binding, immunocytochemistry, or enzyme/protein microchemistry required. Starting salary: \$22,000, for 2 to 3 years renewed annually. Send curriculum vitae, representative publications, and the names of three references to:

Dr. Dennis Drescher, Director
Laboratory of Bio-otology
Wayne State University
School of Medicine
540 East Canfield Avenue
Detroit, Michigan 48201

Wayne State University is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE—CHEMICAL ECOLOGIST with Ph.D. in chemical ecology, natural products chemistry, or related field with experience in qualitative and quantitative analysis of terpenes and phenols in wood. Collaborate with entomologists and mycologists in study of log decay. Salary \$20,000 to 22,000 commensurate with experience. Send curriculum vitae, transcripts, and three letters of recommendation by 20 April 1986 to: **T. D. Schowalter, Department of Entomology, Oregon State University, Corvallis, OR 97331-2907.** *Oregon State University is an Affirmative Action/Equal Employment Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973. Applications from females and minorities are encouraged.*

RESEARCH ASSOCIATE

Position available immediately for a **molecular biologist** with a Ph.D. degree or equivalent training in biochemistry, molecular biology, or microbiology, and at least 3 years of postdoctoral research training. Qualified candidate needs to have considerable experience in the modern molecular biology techniques for gene cloning and analysis, both analytical and preparative, and have a proven record of high-quality research publications. Responsibilities involve gene cloning and analysis in animal and plant systems and participation in training graduate and undergraduate students. Salary negotiable. Send curriculum vitae, at least two representative refereed publications and two letters of recommendation by 20 April 1986 to:

Dr. C.-P. David Tu
Department of Molecular and Cell Biology
Althouse Laboratory
The Pennsylvania State University
University Park, PA 16802
Equal Opportunity/Affirmative Action Employer

RESEARCH ASSOCIATE PROFESSOR IN PSYCHIATRY

Ph.D. required, prefer at least 10 years of bench experience in biochemistry and immunological research, with emphasis in research program in relation to Alzheimer's Disease and related dementias. Candidate should be published in the field. Extensive experience as a wet laboratory scientist with some experience with animals including subhuman primates. Preference to candidate who has experience in guiding and teaching graduate students and clinical fellows. **University of Miami, Department of Psychiatry (D-29), Box O 16960, Miami, FL 33101.** The University of Miami is a private, independent, international university and *Equal Opportunity/Affirmative Action Employer.*

RESEARCH POSITION

To work on the mechanisms of development, differentiation, and neurotransmission in the hippocampal region of mammalian brain. To oversee a tissue culture facility which cultures mammalian neurons and cell lines. Develop monoclonal antibodies for the investigation and characterization of hippocampal neurons. To design and perform biochemical and immunological experiments for analysis of neurotransmitters, glycoconjugates, and fluorescence activated cell sorting. Analyze the results of the experiments and contribute to the development of papers and manuscripts for publication/presentation. Applicants should have a B.S. degree and several years of practical experience in the above-mentioned areas. Salary: \$25,000 per annum. Please send résumés to: **Division of Employment Security, Hurley Building, Boston, MA 02144,** and refer to job reference number 6355.

POSITIONS OPEN

RESEARCH INSTRUCTOR in nonteaching position. Design and execute chemical reactions and total chemical synthesis; isolate, purify, and characterize natural products and enzymatic metabolites; prepare reports, manuscripts, and other documentation as required; make oral presentation of results; maintain inventories and records of equipment and laboratory operations; supervise research activities of students, technicians, and postdoctoral fellows; conduct literature searches and data compilations; participate in all research activities of laboratory, including collaborations with members of other departments or universities. Require Ph.D. in chemistry and 3 years of postdoctoral training. Training must include: eicosanoid isolation, characterization, and total synthesis and application of isoquinolinium cycloadditions in natural products synthesis; and standard handling techniques for air and moisture-sensitive compounds. Require thorough knowledge of IR and 130 spectral interpretations. Must be familiar with Waters Associates preparative and analytical high pressure liquid chromatography, Beckman infrared, and JEOL90 MHz Fourier transform nuclear magnetic resonance equipment and operation. Full-time position. Salary: \$25,000 per year. Apply at: **Texas Employment Commission, Dallas, Texas,** or send résumé to: **Texas Employment Commission, TEC Building, Austin, Texas 78778, J.O. Number 4274787.** *Ad paid by an Equal Employment Opportunity Employer.*

RESEARCH SCIENTIST wanted, 40 hours per week 8 a.m. to 5 p.m. Duties include continuing research on immunological aspects of multimodality immunotherapy for cancer patients; to research immune system performance in correlation with stress-reducing effects of Quran, fasting, prayers, dieting, and also therapeutic effects of medicinal plants; to develop and teach curriculum in Islamic medical education at a later stage; to develop and maintain laboratory. Must have Ph.D. in immune system or related biomedical sciences. Background in the effect of stress on immune system preferred. Knowledge of Quran and traditions and proficiency in Arabic language required. Salary: \$24,000.00 per annum with fringe benefits.

Send résumé to: **Job service of Florida, 1307 North Monroe Street, Tallahassee, FL 32303.** Attention: Reference: JO Number FL-5385571.

SENIOR FACULTY RESEARCH POSITION COLLEGE OF PHARMACY AT THE UNIVERSITY OF GEORGIA

The Department of Medicinal Chemistry is seeking candidates for a senior faculty research position. The applicant should have a background in chemistry or biology and an outstanding record of research supported by extramural funding. Candidates should qualify for appointment at the associate or full professor rank. A background in pharmacy or the pharmaceutical sciences is not required. The successful candidate will be expected to continue a vigorous research program, encouraged and supported to build a thematic research group within and outside the college, and teach graduate level courses. Applicants should submit a detailed résumé, a description of their research program, and the names of three references to: **Dean Howard C. Ansel, College of Pharmacy, University of Georgia, Athens, Georgia 30602.** The deadline for receipt of applications is 1 May 1986. *Affirmative Action and Equal Opportunity Employer.*

SENIOR STAFF OFFICER NATIONAL RESEARCH COUNCIL

The National Research Council (NRC) is an independent, nonprofit organization with roots dating back 120 years. The NRC was established by congressional charter to provide independent advice to the nation on its most critical scientific and technical questions.

The NRC/Board on Atmospheric Sciences and Climate is seeking an individual to assist in planning, coordinating and executing programs, activities, and reports of the board and its committees and panels. This position requires a Ph.D. in meteorology/atmospheric sciences or equivalent, at least 4 years of experience in atmospheric sciences research, and demonstrated administration, organization, and communication skills.

Interested candidates should submit résumé to: **NRC Personnel Office, Position Number 611.005, 2101 Constitution Avenue NW, Washington, DC 20418.** *An Equal Opportunity Employer.*

POSITIONS OPEN

SENIOR RESEARCH ASSOCIATE

Protein biochemist holding Ph.D. degree and at least 2 years of postdoctoral training to be an active participant in well-developed, but innovative study of biologically relevant protein-lipid interactions. Problem area deals primarily with separation, isolation and characterization of unique human liver secretory proteins having a variety of biological functions. Co-workers consist of an interactive group already of critical size for productivity. Candidates should have appropriate biochemistry, cell biology, and possibly applied immunochemistry experience. Submit complete résumé and names of three references to: **G.I. Research Unit, Cleveland Clinic Foundation Research Institute, 9500 Euclid Avenue, Cleveland, 0410-44106.** *An Equal Opportunity Employer.*

SENIOR SCIENTIST

The **W. ALTON JONES CELL SCIENCE CENTER**, Lake Placid, New York, is seeking innovative and experienced molecular biologist to direct independent research in the field of molecular and cellular biology.

We are seeking dedicated and talented scientific professionals with interest in cell biology and growth factors. The successful candidate will have a doctorate in molecular and cellular biology with at least 3 years of postdoctoral experience. Candidates must have the ability to supervise others. Liberal benefits. Salary will commensurate with experience.

Applicants are requested to submit curriculum vitae with list of publications and three letters of academic references by 15 May 1986 to:

Personnel Manager
W. ALTON JONES CELL SCIENCE CENTER
10 Old Barn Road
Lake Placid, New York 12946
Please refer to **Job Order SA-606**
An Affirmative Action/Equal Opportunity Employer

SPONSORED POSTDOCTORAL Speech and Language Research

The Bureau of Child Research at the University of Kansas is offering NINCDS-sponsored postdoctoral traineeships for speech and language researchers. There is a strong emphasis on neurophysiological bases of communicative disorders. Research areas include: auditory electrophysiology, auditory processing, auditory cortex physiology, cellular and molecular processes that control nerve cell excitability, neuropathological speech production, and neuropathological language performance in adults and children. Annual salary is \$16,000 to \$30,000, depending upon experience. Starting date is flexible, but 1 July 1986 is preferred. Application deadline is 15 April 1986. Applicants must be U.S. citizens or hold a permanent visa. Send curriculum vitae, transcripts, research plans and three letters of recommendation to: **Mabel L. Rice, training coordinator, NINCDS Training Grant, University of Kansas, Bureau of Child Research, 1043 Indiana Street, Lawrence, KS 66045.** *Qualified men and women of all races and the handicapped are encouraged to apply. We are an Equal Opportunity/Affirmative Action Employer.*

TEACHING POSITIONS IN IRAQ

Six Iraqi universities and thirty technical institutes are inviting candidates for teaching positions in various disciplines of the following schools:

- | | |
|----------------|------------------------------------|
| 1) Medicine | 8) Engineering Technology |
| 2) Dentistry | 9) Business |
| 3) Pharmacy | 10) Education |
| 4) Nursing | 11) Sciences |
| 5) Veterinary | 12) Humanities and Social Sciences |
| 6) Agriculture | 13) Fine Arts |
| 7) Engineering | |

Candidates should have Ph.D., M.D., M.S., or M.A. degree in the respective area of speciality with teaching experience.

Competitive salary is offered, in addition to many benefits, including housing and medical insurance.

Applicants should send their résumés to the following address:

Educational Office
Embassy of the Republic of Iraq
1801 P Street NW
Washington, DC 20036
Telephone: 202-797-2700

THE FIRST WORD IN...TISSUE CULTURE R & D

Abbott Laboratories' great market success is due in part to our innovations in research and development, including the advances in our chemical and agricultural products division. We currently have positions available for scientists to carry on our excellent tradition of tissue culture research in this growing division.

DEVELOPMENTAL SCIENTISTS

These individuals will be involved with tissue culture for mammalian cell propagation and product formation including R & D, scale-up and implementation of results into production. One position requires you to have experience using micro-carrier, hollow fiber and conventional techniques. The other requires your experience in spinner culture and air-lift fermentor techniques. All applicants should have a Ph.D. in cell biology or equivalent, followed by 1-3 years relevant experience.

PROCESS SUPPORT SCIENTISTS

In this position, you will monitor and troubleshoot the tissue culture production process. The qualified candidate should have an M.S. in cell biology or equivalent, followed by a minimum of 5 years experience in cell culture. You must have a thorough knowledge of cell culture techniques.

These positions are located along the Lake Michigan shoreline approximately 30 miles north of Downtown Chicago. As a \$3.3 billion corporation, we provide excellent salaries and benefits including profit sharing and stock purchase plan. For confidential consideration, please send your resume with salary history to: **Martha Tuttrup/Corporate Placement, Dept. SM 4/4.** Abbott is an Affirmative Action Employer.



ABBOTT PARK IL 60064

"HEALTH CARE WORLDWIDE"

THE FIRST WORD IN...SUCCESS

Research Scientist Biochemist

Wyeth Laboratories—a highly respected name in pharmaceutical research—is intensifying its efforts, particularly at its Radnor, PA-based center for scientific and clinical R&D.

We are seeking a candidate with a PhD in Life Sciences to work in the area of carbohydrate and/or lipid metabolism. A strong background in enzymology coupled with experience in utilization of isolated cellular systems (e.g. adipocytes or hepatocytes) is desirable. Experience in designing and executing research projects and proposing solutions to complex problems is preferred—as is significant recognition in your specialty.

Your broad scoped responsibilities: leading a team on a largely independent research project; establishing analysis needs and priorities, schedules and lab methodologies; interfacing with other disciplines; performing internal and external reporting functions.

To investigate the fine recognition prospects and rewards of this position, send confidential curriculum vitae to: **Position #WD42GP, Personnel Manager, Wyeth Laboratories, Inc., P.O. Box 8299, Philadelphia, PA 19101.** An Equal Opportunity Employer. M/F/H/V responses encouraged.

Wyeth Laboratories, Inc.



Director of Production

We are a research-driven, results-oriented company that is developing pediatric vaccines. Join us and realize first-hand why we have become a pioneer in combatting childhood infectious diseases.

In this highly visible position, you will be responsible for manufacturing biological products (bacterial, viral and diagnostic), and coordinating process transfers from development to production. This position requires an MS or PhD in the Life Sciences area with emphasis in Microbiology, and 5 years experience or equivalent. Previous experience in facilities planning A MUST; start-up operation experience a definite asset.

Our Rochester, N.Y. location ranks high in a number of quality-of-life surveys. We offer competitive salary and fine professional prospects in a company poised for very substantial growth.

Please send confidential resume to: **Praxis Biologics, Human Resources Department, 300 East River Road, Rochester, NY 14623.**

**PRAXIS
BIOLOGICS**

An equal opportunity employer, m/f.

POSITIONS OPEN

UROLOGY

FULL OR HIGH LEVEL ASSOCIATE PROFESSOR—with large experience in pediatric urology in a university setting. *Equal Opportunity Employer.* Box 59, Science.

VASCULAR CELL BIOLOGIST

The Vascular Surgical Research Group at Tufts University seeks a full-time, research scientist with an M.S. or, preferably, a Ph.D. in cell biology or a related area. This individual will play a major role in supervising a cell biology laboratory that is part of an established and productive multidisciplinary team at the Tufts—New England Medical Center, Boston Campus. Current activities include both applied and basic areas such as the interactions of endothelial and smooth muscle cells with biomaterials and prosthetic vascular grafts, and the cellular mechanism of arterial grafts. Background in vascular cell culture, morphologic, and immunologic techniques desirable. Excellent salary and benefits. Interested candidates please send résumé to: **Kathleen Fulton, New England Medical Center, 171 Harrison Avenue, Boston, MA 02111.** *An Affirmative Action/Equal Opportunity Employer M/F.*

VETERINARY PARASITOLOGIST

The Department of Veterinary Pathobiology, University of Illinois, College of Veterinary Medicine, invites applications for an **assistant professor** position (tenure-track) in veterinary parasitology. The candidate should have a D.V.M./Ph.D. or Ph.D. degree with evidence of training or experience in veterinary parasitology. Duties include teaching parasitology to veterinary and graduate students and development of a strong research program. Special consideration will be given to applicants whose research interests complement existing programs. Research in the department is conducted in microbiology, immunology, pathology, preventive medicine, public health, epidemiology, and parasitology. Salary is negotiable. Inquiries, including a letter of application, curriculum vitae, and three references, should be sent to: **Dr. Walter E. Hoffmann, Chair, Search Committee, College of Veterinary Medicine, 1008 West Hazelwood Avenue, Small Animal Clinic, University of Illinois, Urbana, IL 61801; telephone: 217-333-5300.** To ensure full consideration, applications must be received by 15 May 1986; starting date as soon as possible thereafter.

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

VIROLOGIST/MOLECULAR BIOLOGIST. The Ophthalmology Research Laboratories, Cedars-Sinai Medical Center, a University of California, Los Angeles-affiliated hospital, is seeking applicants for a full-time, tenure-track equivalent assistant professorship in the Virology Research Division. Applicants should hold a Ph.D. or equivalent in the area of microbiology/molecular biology, have interest in pathobiology of herpes simplex infections, and demonstrated ability to carry out independent research. The successful applicant will be a staff member of a permanently endowed research facility. Send curriculum vitae, letter outlining research interests, and three letters of recommendation to:

Anthony B. Nesburn, M.D. (RA)
Cedars-Sinai Medical Center
Halper Building, Suite 116
8700 Beverly Boulevard
Los Angeles, CA 90048

VISITING SCIENTIST

Visiting Scientist position available starting May 1986, for 2 years, to study the hormonal control of differentiation of teratoma cell lines at the cellular and molecular levels. Work will involve protein purification and DNA recombinant technologies. The position requires experience in molecular biology or protein biochemistry. Postdoctoral candidates with a Ph.D. should send curriculum vitae and three names of references, statement outlining research interest, and career goals to:

Lorraine L. G. Tyler
Personnel Manager

W. ALTON JONES CELL SCIENCE CENTER
10 Old Barn Road
Lake Placid, New York 12946

Please refer to Job Order SE-605

An Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

TECHNICAL SPECIALIST — Opportunity for Ph.D. experienced in nucleic acid preparation, radiolabeling, southern and northern blotting, to oversee operations of new molecular diagnosis laboratory at major university medical center. Experience with proteins also desirable. Superb opportunities for methods development and research. Qualified candidates send résumé to: **HUP Recruitment, Number 0629-P, Department of Pathology and Laboratory Medicine, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104.** *Equal Opportunity/Affirmative Action Employer.*

COURSES

ELECTRON MICROSCOPY (TEM/SEM): Biological applications. Designed for professional and laboratory personnel who desire practical hands-on training in basic techniques of TEM and SEM. Graduate credit and/or certificate awarded. Tuition: \$800. Date: 8 through 25 July 1986. For further information and registration form, contact: **Dr. Dan Scheirer, Department of Biology, Northeastern University, Boston, MA 02115; telephone: 617-437-2260.**

SYMPOSIUM

3RD INTERNATIONAL SYMPOSIUM ON MOLECULAR ELECTRONIC DEVICES WASHINGTON, DC 6-8 OCTOBER 1986

Topics to be covered include controlling and modifying signals at the molecular size level, fabrication, self-organization, nanolithography, optical switching, and relevant techniques such as Langmuir-Blodgett film preparation and scanning tunnelling spectroscopy. Experimental results emphasized. For further information, contact: **Dr. Forrest L. Carter, Chemical Division, Code 6170, Naval Research Laboratory, Washington, DC 20379-5000; telephone: 202-767-2100.**

FELLOWSHIPS

1986 to 1987 FELLOWSHIPS FOR GREAT APE RESEARCH AND CONSERVATION

The fellowship, co-sponsored by the L. S. B. Leakey Foundation and Wildlife Conservation International (WCI), a Division of the New York Zoological Society, will be awarded to promote long-term research on wild populations of great apes. Preference will be given to individuals whose work promises to improve significantly the conservation status of a population or species and elucidate causes of variation in ape behavior and our understanding of the origins of human behavior. Priority will be given to research in previously unstudied habitats. Awards will be made for field expenses only. One or two fellowships, worth together up to a total of \$40,000, will be awarded in November 1986. Applicants should submit curriculum vitae and a one-page statement of research goals by 1 May 1986 to: **Dr. Mary Pearl, Administrator of Conservation Programs, Wildlife Conservation International, New York Zoological Society, Bronx, NY 10460.** Eligible candidates will be asked to submit a full proposal to either WCI or L. S. B. Leakey by 1 August 1986.

POSTDOCTORAL FELLOWSHIP IN CELLULAR IMMUNOLOGY AND IMMUNOGENETICS

Qualified candidates with M.D. or Ph.D. degrees and a strong commitment to research training in immunology and immunogenetics are encouraged to apply to: **Dr. Baruj Benacerraf, Department of Pathology, Harvard Medical School, 25 Shattuck Street, Boston, MA 02115.** *An Affirmative Action/Equal Opportunity Employer.*

A background in chemistry or molecular biology is desirable.

Problems under investigation in murine systems are: Antigen processing and presentation; T-cell differentiation and repertoire generation; T-cell activation; suppressor T-cell regulation.

FELLOWSHIPS

PREDOCTORAL AND POSTDOCTORAL FELLOWSHIPS IN EXPERIMENTAL PATHOLOGY—NIH training grant positions available in environmental pathology, cell and molecular biology, carcinogenesis, toxicology, infectious disease, immunopathology, and virology. Please forward inquiries to: **Dr. Kenneth B. Adler, Department of Pathology, University of Vermont, College of Medicine, Burlington, VT 05405.**

NIH POSTDOCTORAL FELLOWSHIP available immediately for 2 years for a qualified Ph.D. in cell biology, biochemistry, or molecular biology. The individual will participate with a multi-disciplinary team studying the molecular responses of heterogeneous murine carcinoma cells to ionizing radiation. Studies include: cell survival, flow cytometric analysis, DNA damage induction and repair, analyses of chromatin structure and function, thiol metabolism, and poly(ADP-ribosylation). Stipend dependent on experience. U.S. citizenship or permanent visa required. Send curriculum vitae and names of three references by 1 April 1986 to: **Dr. Lyle A. Dethlefsen, Department of Radiology, University of Utah Health Sciences Center, Salt Lake City, Utah 84132.** Applications received after this date will be considered if no qualified applicant can be found. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOWSHIP IN SYSTEMATIC ICHTHYOLOGY

Position will consist of using museum collections to conduct independent research in fish systematics and to assist with collection management and public program activities. One year with possibility of renewal. Stipend \$22,517.40 per year. Starting date negotiable. Send curriculum vitae, brief outline of proposed research, and names of three referees to: **Dr. Camm C. Swift, Division of Life Sciences, Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007. Telephone: 213-744-3375.** Applications received before 1 May will receive special consideration. *An Equal Opportunity Employer.*

LUCILLE P. MARKEY FELLOWSHIPS

for graduate study in
PHYSIOLOGY AND BIOPHYSICS
at the University of Miami School of Medicine

Fellowships are now available for Ph.D. studies in neurobiology, membrane biophysics, development, and cell-to-cell communication. Applications are sought from highly qualified individuals with backgrounds in the physical, biological, or engineering sciences. Annual stipend \$12,000, plus tuition and fees. For information and applications, write to: **Dr. K. J. Muller, P.O. Box 016430, Miami, FL 33101. Telephone: 305-547-6821.** *The University of Miami is an Affirmative Action/Equal Opportunity Educator and Employer.*

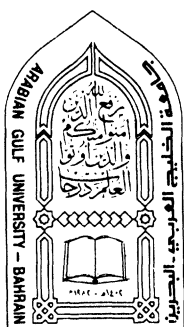
IMPERIAL CANCER RESEARCH FUND Research Fellowship

A postdoctoral fellowship is available to work on gene expression in mammalian cells. The DNA sequences involved in gene expression and the mechanisms involved in their control will be investigated. Candidates should have experience in molecular biology and recombinant DNA technology.

The award will be tenable for 3 years on the salary range £10,642 to £13,018. Entry depending upon qualifications and experience.

Please send full curriculum vitae and names of three references to: **The Personnel Officer, Imperial Cancer Research Fund, Lincoln's Inn Fields, London, England WC2A 3PX,** quoting reference: 57/86.

Irvington House Institute for Medical Research will award **SEVEN POSTDOCTORAL FELLOWSHIPS** in immunology for 2 years of study in the United States beginning 1 July 1987. Applicants holding M.D.'s, Ph.D.'s and M.D./Ph.D.'s are encouraged to apply. Those having no more than 3 years of postdoctoral training will get preference. Successful candidates receive a stipend of \$20,000 and \$21,000 for years 1 and 2. Applications are available from: **Irvington House Institute for Medical Research, 120 East 56 Street, New York 10022,** and are due on or before 15 August 1986.



جامعة الخليج العربي

ARABIAN GULF UNIVERSITY

Applications are invited for Fulltime Faculty positions in the New College of Medicine and Medical Sciences, Arabian Gulf University, State of Bahrain. The College follows a community oriented innovative, problem based, self learning system.

Applicants should possess a Ph.D., M.D., Membership or Fellowship or equivalent qualification. Applicants should be able to demonstrate teaching and research competence in their field, and must have conducted and published research, related to the field mentioned.

Preference will be given to those with knowledge of innovative medical education and those with a working knowledge of Arabic.

FACULTY POSITIONS

Professors, Associate Professors, and Assistant Professors in:

- | | |
|--|--|
| — Anatomy | — Public Health |
| — Haematology | — Nutrition |
| — Histo-pathology | — Medical Education (Evaluation, Instructional design) |
| — Medical Parasitology | — Surgery — SENIOR |
| — Physiology (Neurophysiology, Membrane) | — Obstetrics and Gynaecology — SENIOR |
| — Clinical Pharmacology | — Internal Medicine/Paediatrics |
| — Maternity and Child Health | (Endocrinology) (genetic diseases) |

MONTHLY SALARY: from B.D. 1000.000 for an Assistant Professor, up to B.D. 2050.000 for a Senior Professor; plus a 30% allowance or a 50%, (for practicing clinicians).
(1 B.D. = approx. \$2.60)

NOTEWORTHY BENEFITS

- * Free return air tickets annually for faculty member and family
- * Monthly transport allowance
- * Relocation allowance
- * End-of-service gratuity
- * Free public medical and dental care covering family
- * Contribution by University to tuition fees of non-Arabic-speaking children.

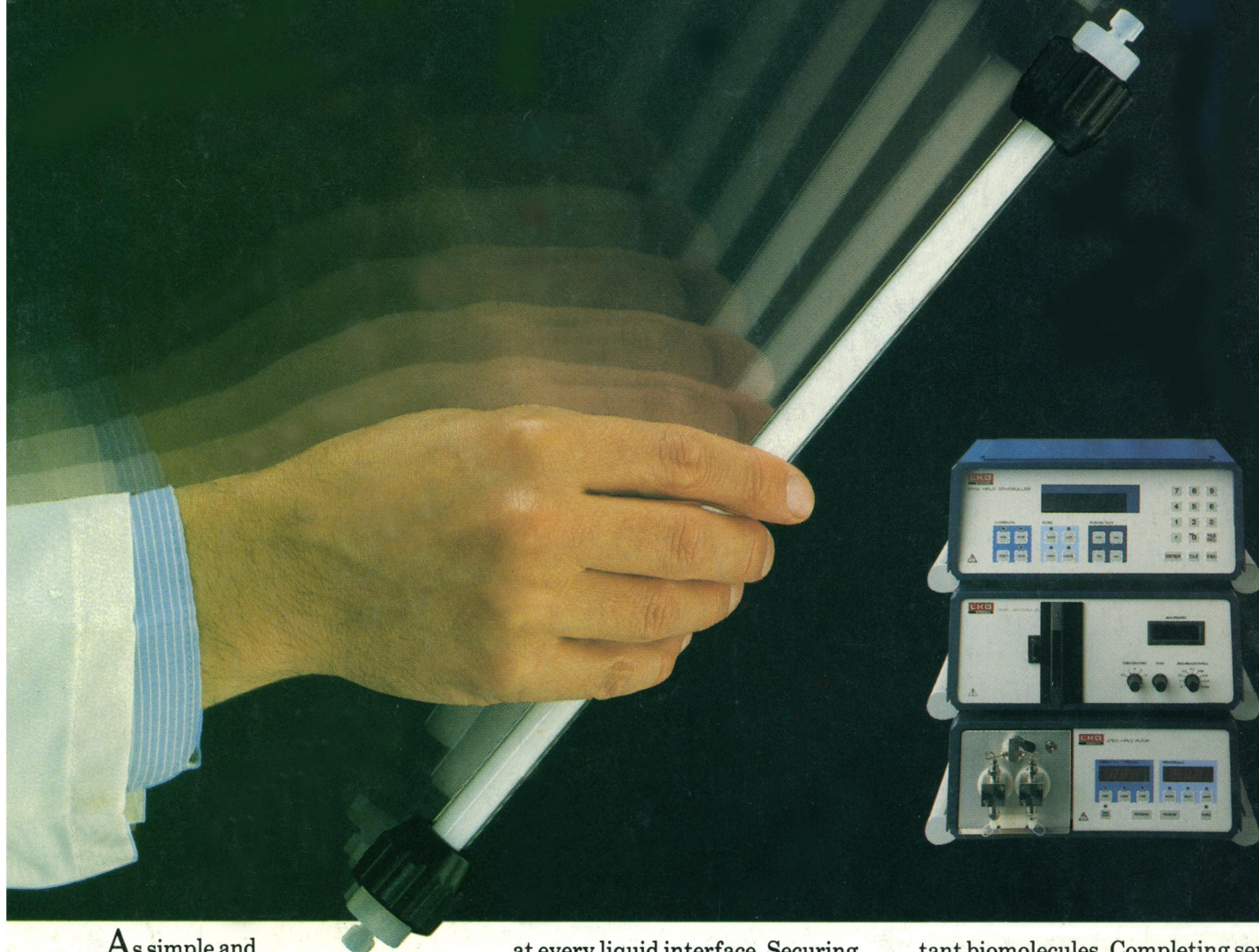
METHOD OF APPLICATION

Applicants are requested to send their curriculum vitae, the names of three references, personal particulars, qualifications with dates, career history, teaching experiences, research accomplishments and appropriate clinical experience.

Applications should be sent before April 18, 1986 to:

Recruitment Committee
College of Medicine and Medical Sciences
The Arabian Gulf University
P.O. Box 22979, Manama, Bahrain

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at every liquid interface. Securing protection against buffers. Against corrosion by halide ions. Against denaturation by organic solvents. But with all the performance of a truly advanced and highly proven HPLC pump. Meeting all your needs for multi-dimensional separation. Beginning with GFC. Switching columns for Ion Exchange, and then again for Hydrophobic Interaction Chromatography. Getting you higher resolution and increased purity all the way. With rapid analysis of sample complexity, continuously progressive purification and successful isolation of your impor-

tant biomolecules. Completing separation strategies in hours instead of days. Solving particular problems with the most appropriate chromatography. Even reversed phase including microbore and fast LC. On just one system with unlimited potential. Giving you the most versatile chromatography in the world. Already being used by hundreds of biochemists. Getting them more results. Much faster. Much simpler. More reliably. One word says it all. GTi. You'll find it solving problems faster and better than any other separation system available. Get in touch with LKB. You're in for a winner.

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