

Another subplot of the book concerns Cantor's rather covert extrascientific life, which includes independent wealth due to a settlement from an admiring ex-father-in-law, connoisseurship of erotic art and antique furniture, and chamber-music playing as well as a discreetly presented romance with (as it happens) Celly's aunt. The story ends well for all the lovers, rather in the manner of *A Midsummer Night's Dream*, but professionally Cantor is left with a Machiavellian dénouement more reminiscent of *La Ronde*.

The book is peppered with the names of real scientists and anecdotes from the history of science and includes an afterword in which the author, whom readers of *Science* are most likely to know for his work on oral contraceptives, explains his intentions.

—K.L.

Reprints of Books Previously Reviewed

Leviathan and the Air-Pump. Hobbes, Boyle, and the Experimental Life. Steven Shapin and Simon Schaffer. Princeton University Press, Princeton, NJ, 1989. Paper, \$16.95. Reviewed 232, 1040 (1986).

Three Hundred Years of Gravitation. S. W. Hawking and W. Israel, Eds. Cambridge University Press, New York, 1989. Paper, \$34.50. Reviewed 240, 1069 (1988).

Books Received

Acid Toxicity and Aquatic Animals. R. Morris *et al.*, Eds. Cambridge University Press, New York, 1989. xii, 282 pp., illus. \$59.50. Society for Experimental Biology Seminar Series, vol. 34. Based on a symposium, Nottingham, UK, March 1986.

Aggression and War. Their Biological and Social Bases. Jo Groebel and Robert A. Hinde, Eds. Cambridge University Press, New York, 1989. xvi, 237 pp. \$49.50; paper, \$14.95.

Before It's Too Late. The Child Guidance Movement in the United States, 1922–1945. Margo Horn. Temple University Press, Philadelphia, 1989. xii, 224 pp. \$34.95. American Civilization.

Behaviorism, Neobehaviorism, and Cognitivism in Learning Theory. Historical and Contemporary Perspectives. Abram Amsel, Erlbaum, Hillsdale, NJ, 1989. xiv, 105 pp. \$19.95. MacEachran Memorial Lecture Series.

Biology of Seagrasses. A Treatise on the Biology of Region. A. W. D., Larkum, A. J. McComb, and S. A. Shepherd, Eds. Elsevier, New York, 1989. xxiv, 841 pp., illus. \$152.75. Aquatic Plant Studies, vol. 2.

Biotechnology in Growth Regulation. R. B. Heap, C. G. 1989. x, 286 p., illus. \$39.95. From a symposium, Cambridge, UK, Sept. 1988.

Bubbles, Voids, and Bumps in Time. The New Cosmology. James Cornell, Ed. Cambridge University Press, New York, 1989. xiv, 190 pp., illus. \$22.95. From a lecture series, Boston, MA, and Washington, DC, 1987.

Building Knowledge Systems. Developing and Managing Rule-Based Applications. Michael A. Carrico, John E. Girard, and Jennifer P. Jones. Intertext, New York, and McGraw-Hill, New York, 1989. xiv, 335 pp. \$39.95. Artificial Intelligence Series.

The Cambridge Guide to the Material World. Rodney Cotterill. Cambridge University Press, New York, 1989. viii, 352 pp., illus. Paper, \$27.95. Reprint, 1985 ed.

Caring and Responsibility. The Crossroads Between Holistic Practice and Traditional Medicine. June S. Lowenberg. University of Pennsylvania Press, Philadelphia, 1989. x, 296 pp. \$29.95.

Dynamical Chaos. M. V. Berry, I. C. Percival, and N. O. Weiss, Eds. Princeton University Press, Princeton, NJ, 1989. vi, 199 pp., illus. Paper, \$19.50. Reprint, 1987 ed.

Dynamics of Dense Stellar Systems. David Merritt, Ed. Cambridge University Press, New York, 1989. xii, 251 pp., illus. \$49.50. From a workshop, Toronto, Ontario, May 1988.

The Ecology of Intercropping. John Vandermeer. Cambridge University Press, New York, 1989, xii, 237 pp., illus. \$59.50.

Economics as Social Science. An Evolutionary Approach. Wendell Gordon and John Adams. Riverdale, Riverdale, MD, 1989. x, 254 pp., illus. \$33; paper, \$25.

The Empire of Chance. How Probability Changed Science and Everyday Life. Gerd Gigerenzer *et al.* Cambridge University Press, New York, 1989. xviii, 340 pp. \$44.50. Ideas in Context.

Endocrine, Metabolic and Immunologic Functions of Keratinocytes. Leonard M. Milstone and Richard L. Edelson, Eds. New York Academy of Science, New York, 1988. x, 366 pp., illus. Paper, \$92. Annals of the New York Academy of Sciences, vol. 548. From a conference, New York, Feb. 1988.

Ethics and Human Values in Family Planning. Z. Bankowski, J. Barzelatto, and A. M. Capron, Eds. Council for International Organizations of Medical Sciences, Geneva, 1989. viii, 308 pp. Paper, SwF 20. From a conference, Bangkok, Thailand, June 1988.

Experimental Biochemistry. Robert L. Dryer and Gene F. Lata. Oxford University Press, New York, 1989. xx, 514 pp., illus. \$29.95.

Finite Quantum Electrodynamics. G. Scharf. Springer-Verlag, New York, 1989. x, 224 pp. \$49.50.

Foreign Intelligence. Research and Analysis in the Office of Strategic Services, 1942–1945. Barry M. Katz. Harvard University Press, Cambridge, MA, 1989. 239 pp. \$27.50.

Fracture Mechanics of Rock. Barry Kean Atkinson, Ed. Academic Press, San Diego, CA, 1989. xii, 534 pp., illus. Paper, \$39.95. Reprint, 1987 ed.

Functional Equations in Several Variables, with Applications to Mathematics, Information Theory, and to the Natural and Social Sciences. J. Aczel and J. Dhombres. Cambridge University Press, New York, 1989. xiv, 462 pp., illus. \$89.50. Encyclopedia of Mathematics and Its Applications, vol. 31.

The Galileo Affair. A Documentary History. Maurice A. Finocchiaro, Ed. University of California Press, Berkeley, 1989. xvi, 382 pp. \$50; paper, \$12.95. California Studies in the History of Science, vol. 1.

Housing, Care and Psychological Wellbeing of Captive and Laboratory Primates. Evalyn F. Segal, Ed. Noyes, Park Ridge, NJ, 1989. xxxii, 544 pp., illus. \$64. Noyes Series in Animal Behavior, Ecology, Conservation and Management.

Human Mast Cells. Ann M. Dvorak. Springer-Verlag, New York, 1989. viii, 107 pp., illus. Paper, \$83.30. Advances in Anatomy, Embryology, and Cell Biology, vol. 114.

Human Population Biology. A Transdisciplinary Science. Michael A. Little and Jere D. Haas, Eds. Oxford University Press, New York, 1989. xiv, 338 pp., illus. \$59.95.

Information Technology. Agent of Change. Murray Laver. Cambridge University Press, New York, 1989. vi, 189 pp., illus. \$39.50.

Instabilities in Space and Laboratory Plasmas. D. B. Melrose. Cambridge University Press, New York, 1989. xii, 280 pp., illus. Paper, \$24.95. Reprint, 1986 ed.

Lithography in Microelectronics. T. M. Makhviladze, Ed. Nova Science, Commack, NY, 1989. x, 207 pp., illus. \$62. Proceedings of the Institute of General Physics, Academy of Sciences of the U.S.S.R., vol. 8. Translated from the Russian edition (Moscow, 1987) by Al Peabody.

Loglan® 1. A Logical Language. James Cooke Brown. 4th ed. The Loglan Institute, Gainesville, FL, 1989. 599 pp. Paper, \$21.50.

Matrix Computations. Gene H. Golub and Charles F. Van Loan. 2nd ed. Johns Hopkins University Press, Baltimore, 1989. xx, 642 pp. \$59.50; paper, \$29.95. Johns Hopkins Series in the Mathematical Sciences, vol. 3.

Membrane in Cancer Cells. Tommaso Galeotti *et al.*, Eds. New York Academy of Sciences, New York, 1988. xiv, 455 pp., illus. Paper, \$114. Annals of the New York Academy of Sciences, vol. 551. From a conference, Perugia, Italy, June 1988.

Molecular Genetics of Escherichia coli. P. F. Smith-Keary. Guilford, New York, 1989. xvi, 198 pp., illus. \$40; paper, \$18.95. Molecular Cell Biology.

Physical Optics. Robert W. Wood. Optical Society of America, Washington, DC, 1988. xxii, 846 pp., illus. Paper, \$32.50. Reprint, 1934 ed.

Prehistoric Astronomy in the Southwest. J. McKim Malville and Claudia Putnam. Johnson, Boulder, CO, 1989. iv, 105 pp., illus. Paper, \$7.95.

Prescribed Burning in California Wildlands Vegetation Management. Harold H. Biswell. University of California Press, Berkeley, 1989. xii, 255 pp., illus. \$27.50.

Principles of Soil-Plant Interrelationships. Victor V. Rendig and Howard M. Taylor. McGraw-Hill, New York, 1989. xviii, 275 pp., illus. \$39.95.

Principles of Statistical Radiophysics. Vol. 3, Elements of Random Fields. S. M. Rytkov, Yu. A. Kravtsov, and V. I. Tatarskii. x, 239 pp., illus. \$99. Translated from the Russian edition (Moscow, 1978).

Proofs and Types. Jean-Yves Girard. Cambridge University Press, New York, 1989. xii, 176 pp. \$34.50. Cambridge Tracts in Theoretical Computer Science, vol. 7. Translated from the French by Paul Taylor and Yves Lafont.

Security Perspectives of the West German Left. The SPD and the Greens in Opposition. William E. Griffith *et al.* Published for the Institute for Foreign Policy Analysis by Pergamon-Brassey's (Pergamon), Elmsford, NY, 1989. xii, 132 pp. Paper, \$9.95.

Sidereus Nuncius, or, The Sidereal Messenger. Galileo Galilei. University of Chicago Press, Chicago, 1989. xii, 127 pp., illus. \$29.95; paper, \$7.95. Translated from the Latin edition (Venice, 1610) by Albert van Helden.

Silicon Dreams. Information, Man, and Machine. Robert W. Lucky. St. Martin's, New York, 1989. xviii, 411 pp., illus. \$16.95.

Social Control and Multiple Discovery in Science. The Opiate Receptor Case. Susan E. Cozzens. State University of New York Press, Albany, 1989. xiv, 236 pp. \$44.50; paper, \$14.95. SUNY Series in Science, Technology, and Society.

Social Order/Mental Disorder. Anglo-American Psychiatry in Historical Perspective. Andrew Scull. University of California Press, Berkeley, 1989. xii, 360 pp., illus. \$25. Medicine and Society, vol. 3.

Techniques in Protein Chemistry. Tony E. Hughli, Ed. Academic Press, San Diego, CA, 1989. xviii, 612 pp., illus. \$65. From a meeting, San Diego, CA, Aug. 1988.

A Theory of Human and Primate Evolution. Colin P. Groves. Clarendon (Oxford University Press), New York, 1989. xii, 375 pp., illus. \$75.

Theory of Stability of Colloids and Thin Films. B. V. Derjaguin. Consultants Bureau (Plenum), New York, 1989. xiv, 258 pp., illus. \$85. Translated from the Russian by Robert K. Johnston.

Time and Change. Short But Differing Philosophies. Elias Harry Chacalos. Potomac Press Circle, Fairfax Station, VA, 1989. 367 pp. \$24.95.

The Transfer of Cognitive Skill. Mark K. Singley and John R. Anderson. Harvard University Press, Cambridge, MA, 1989. xii, 300 pp., illus. \$30. Cognitive Science Series, vol. 9.

Transformation in Clinical and Developmental Psychology. Deirdre A. Kramer and Michael J. Bopp, Eds. Springer-Verlag, New York, 1989. xiv, 263 pp. \$59.

Transmission Electron Microscopy. Physics of Image Formation and Microanalysis. Ludwig Reimer. 2nd ed. Springer-Verlag, New York, 1989. xiv, 547 pp., illus. Paper, \$79.50. Springer Series in Optical Sciences, vol. 36.

Tula of the Toltecs. Excavations and Survey. Dan M. Healan, Ed. University of Iowa Press, Iowa City, 1989. xii, 301 pp., illus., + charts and diskette. \$45.

The Works of Charles Babbage. Martin Campbell-Kelly, Ed. New York University Press, New York, 1989 (distributor, Columbia University Press, New York). 11 vols. Vol. 1, Mathematical Papers. 456 pp., illus. Vol. 2, The Difference Engine and Table Making. 233 pp., illus. Vol. 3, The Analytical Engine and Mechanical Notation. 253 pp., illus. Vols. 4–5, Scientific and Miscellaneous Papers. 217 pp., illus., and 192 pp., illus. Vol. 6, A Comparative View of the Various Institutions for the Assurance of Lives. 129 pp. Vol. 7, Reflections on the Decline of Science in England and on Some of Its Causes. 133 pp. Vol. 8, The Economy of Machinery and Manufactures. 280 pp. Vol. 9, The Ninth Bridgewater Treatise. 118 pp. Vol. 10, The Exposition of 1851. 173 pp. Vol. 11, Passages from the Life of a Philosopher. 425 pp. \$995.

The Yeasts. Vol. 3, Metabolism and Physiology of Yeasts. Anthony H. Rose and J. Stuart Harrison, Eds. 2nd ed. Academic Press, San Diego, CA, 1989. xxiv, 635 pp., illus. \$99.50.

Products & Materials

Kit for Freezing Mouse Embryos

Cryozyte is a kit that allows laboratory researchers to preserve mouse embryos by freezing them on-site. Cryozyte preserves through a freezing process called vitrification in which embryos are quickly cooled to liquid nitrogen temperatures and encased in supercooled liquid. The process is designed to prevent the formation of ice crystals that can damage cells during thawing. Transgenic Sciences. Circle 533.

Monoclonal Antibodies

Monoclonal antibodies for HTLV-1 envelope, HTLV-1 core proteins, HIV-1 core and envelope proteins, interleukin-2 receptor (CD25), β_2 -microglobulin, HLA antigens, human cytokines, and T4 (CD4). Olympus Corp. Circle 534.

Monoclonal antibody to rat glycine receptor offers a safe immunological alternative to the use of tritiated strychnine in localizing the receptor in immunohistochemical techniques. Boehringer Mannheim. Circle 535.

Anti-desmin monoclonal antibody, for the main intermediate filament in mature skeletal, cardiac, and smooth muscle cells, does not cross-react with any other intermediate filament proteins. Biomedica Corp. Circle 536.

LN-1 (CDw75), LN-2 (CD74), and LN-3 B-lymphocyte, mouse, antihuman monoclonal antibodies can help differentiate T cell and B cell lymphomas. Janssen Biochimica. Circle 537.

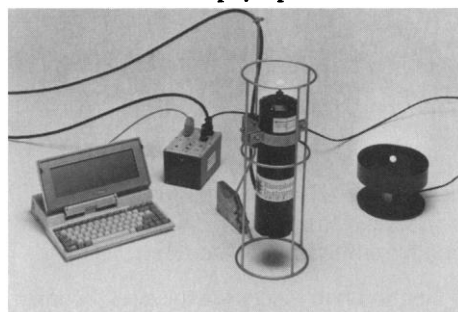
Antiproliferating cell nuclear antigen offers a quick and simple way to target proliferating cells without DNA pulse labeling. Boehringer Mannheim. Circle 538.

A complete panel of monoclonal antibodies to oncogene proteins, growth factors and receptors, hematopoietic factors, DNA tumor viruses, intermediate filaments, cytoskeletal protein, phosphatases, protein kinase substrates, and phosphotyrosine. Examples, include *c-neu*, *c-abl*, *N-myc*, EGF-receptor, CSF-1, G-CSF, and TGF- α . Oncogene Science. Circle 539.

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

Underwater Photosynthesis Profiler

The PNF-300 Profiling Natural Fluorometer measures real-time underwater photosynthesis, temperature, and depth, as well as surface irradiance. The method measures direct photosynthetic rates through the natural fluorescence of phytoplankton. The in-



strument can be deployed to depths of 200 m from platforms as small as outboard-powered inflatables. The system includes menu-driven software for data acquisition, display, and analysis. Applications include assessment of fisheries and coral reefs, monitoring of water treatment plants, and remote sensing of global primary production. Biospherical Instruments. Circle 529.

Palmtop Computer

Atari's Portfolio is a 1-pound computer with 128K of random access memory. The "palmtop" computer, about the size of a VCR tape, can accept adapted MS-DOS software and includes a Lotus-compatible spreadsheet, a basic word processing package, an appointment calendar, and an address book. The system, which runs on three AA batteries, has a suggested retail price of \$399.95. It features a 63-key IBM-PC software-compatible keyboard and an LCD display with 40-column by 8-line text mode and 240 by 64 pixel graphics mode. Users can load files to any MS-DOS system or print directly from the Portfolio. Files are kept on credit card-sized, solid-state memory cards in place of floppy disks. Options include expanded memory and interfaces. Atari Computer. Circle 528.

Tissue Section Adhesive

VECTABOND Reagent is a tissue section adhesive designed to increase adherence of both frozen and paraffin-embedded tissue sections to glass slides, even under the harsh conditions required for in situ hybridization. The product chemically modifies the glass to form a highly adherent surface. It

allows treated slides to be stored for long periods while retaining their strong adhesive properties and avoids the common problems of traditional agents, such as instability and protease susceptibility. Vector Laboratories. Circle 540.

On-line Computer Directory

The Computer Directory is an on-line electronic directory providing information on more than 55,000 computer hardware and software products sold in North America. The directory's powerful search software enables the user to pinpoint a product or group of products in seconds by using simple menu commands. The directory provides specifications of the products and profiles of the 9500 manufacturers. The database includes information on software packages, computer systems, peripherals, and telecommunications products. Products can be located by using several criteria, such as product name, company name, product type, and price range. Ziff Communications Co. Circle 542.

Literature

The 1989 *Product Guide* covers product lines for electrophoresis, chromatography, acrylics, diagnostic assays, and more. The complete line of electrophoresis products includes precast gels, ready-to-use screening kits, positive markers, and equipment. Isolab. Circle 569.

Oncor Price Catalog details more than 200 products in the molecular biology company's lines of reagents, probes, instruments, and accessories for nucleic acids analysis. Oncor. Circle 570.

Sample Management Supplement highlights products for sample preparation, handling, measurement, and storage. The 32-page catalog introduces a variety of new products and supplies ranging from plasticware and storage cabinets to calculators and computer software. Also included are instruments such as pH meters, timers, and centrifuges. Whatman Labsales. Circle 572.

A brochure on *Tissue Culture Media Filtration* describes a line of disposable filtration devices for tissue culture media clarification and sterilization and a new system for the production of tissue culture-grade water. Millipore. Circle 433.

Laboratory Acrylics Catalog includes biohazard safety shields and containers, safety shields and racks for columns and pipettes, petri dish and pipette tip dispensers, holders for lab tissues, plastic gloves, notebooks, safety glasses, and vials. Isolab. Circle 434.

AIDS

Books from AAAS

AIDS 1988: AAAS Symposia Papers

Edited by Ruth Kulstad
Foreword by C. Everett Koop

This volume contains many of the groundbreaking papers on AIDS presented at the 1988 AAAS Annual Meeting.

The wide variety of the papers presented here reflects the current thinking about AIDS research today—that control over the AIDS epidemic must be achieved through a collaborative, multi-disciplinary effort that includes not only the medical and biological sciences, but the social and behavioral sciences as well.

This fully indexed volume is organized into five major sections: The first explores the epidemiology and natural history of AIDS and the HIV infection both in the United States and internationally. It also looks at the difficulty of predicting the course of the virus—statistical issues;

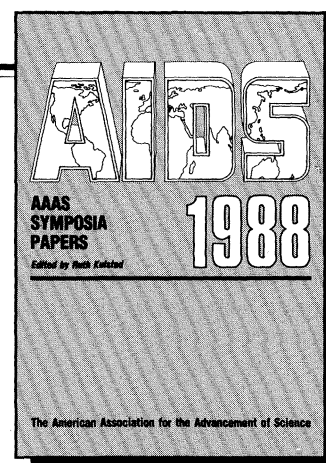
patterns of HIV-1 incubation, infectiousness, and transmission; and approaches to demographic impact modeling.

Section two discusses the social consequences of AIDS as they relate to gender, intravenous drug users, and public policy, and it examines the dilemmas that AIDS presents to the medical community.

The third section focuses on the AIDS prevention strategies currently employed around the world.

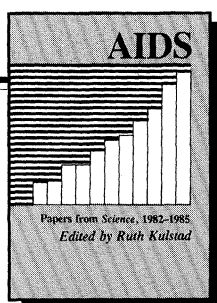
Section four considers the economic, political, ethical and legal issues surrounding the epidemic.

The final section presents several recent medical and biological studies on AIDS and HIV.



AIDS 1988 is a timely, authoritative source of information on the growing body of AIDS research being conducted around the world. It is essential for medical, biological, social, and behavioral scientists, and for everyone who is professionally or personally concerned about the AIDS epidemic.

1988; 478 pp.; softcover
index; 12 appendices
#88-19S – \$29.95 (members \$23.95)



AIDS: Papers from Science, 1982-1985

Edited by Ruth Kulstad

This collection includes frequently cited research papers and news reports on AIDS that were published in *Science* between August 1982 and September 1985.

Many of the papers relate directly to AIDS research, while others touch on relevant aspects of the immune system. The news stories help to explain the ongoing research, while focusing on some of the sociological questions raised by the disease. The book is arranged chronologically, enabling the reader to trace the his-

tory of the AIDS epidemic through September 1985—a history that is of great sociological interest.

This fully indexed collection is valuable not only for the experimental data and conclusions, but also as an excellent bibliographic reference of AIDS work in major journals worldwide.

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Pharmacologist, Ph.D. Looking for finance-oriented (management/marketing) industry position while obtaining M.B.A. Box 235, **SCIENCE**.

Ph.D. Pharmacology (1986). Cardiovascular research. Experienced in animal surgery, hemodynamic studies in small and large animals, *in vitro* techniques, RIA, and thin-layer chromatography. Several publications, some teaching experience. Seeks suitable position. Box 223, **SCIENCE**.

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Swarthmore College is an Equal Opportunity Employer.

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UNIVERSITY OF COLORADO COLORADO SPRINGS CAMPUS

The Biology Department at Colorado University—Colorado Springs (UCS) is seeking to fill two tenure-track **ASSISTANT PROFESSORSHIPS**, beginning 27 August 1990.

EXERCISE SCIENTIST. Ph.D. or M.D./Ph.D. with postdoctoral experience and expertise in appropriate disciplines, e.g., human physiology, anatomy, kinesiology, biochemistry, nutrition, and biomechanics, and a commitment to excellence in teaching and research. Responsibilities include directing the departmental curriculum exercise science at the B.A. and M.A. level and developing a vigorous independent research program. Position also involves coordinating a cooperative research program with United States Swimming. The federation's multimillion dollar International Center for Aquatic Research is located at the U.S. Olympic Training Center in Colorado Springs.

BIOLOGIST. Ph.D. with postdoctoral experience to participate in the undergraduate and graduate teaching programs and to develop a vigorous independent research program that will complement departmental research expertise in yeast molecular genetics, plant biochemistry, tumor biology, bone cell metabolism, exercise science, and biotechnology. Commitment to excellence in teaching and research is required.

Applicants should submit a résumé, a statement of teaching philosophy and interests, an outline of research plans and career goals, and representative publications to: **Dr. Douglas Swartzendruber, Chair, Department of Biology, CU—Colorado Springs, Colorado Springs, CO 80933-7150.** Telephone: 719-593-3479. FAX: 719-593-3362. Application reviews will begin 15 November 1989 and will continue until both positions are filled. *The University of Colorado is an Equal Opportunity Employer and women and minorities are encouraged to apply.*

POSITIONS OPEN

The Department of Psychology, University of North Carolina at Chapel Hill, expects two tenure-track **ASSISTANT PROFESSOR** positions in the experimental and biological psychology program effective 1 July 1990. Duties would include teaching and research training at the undergraduate and graduate levels; candidates with research interests in learning and memory and in behavioral pharmacology are especially encouraged to apply. Résumé, statement of research interests, two representative publications, and four letters of recommendation should be sent by 15 December 1989 to: **Paul G. Shinkman, Director, Experimental and Biological Psychology Program, CB#3270, University of North Carolina, Chapel Hill, NC 27599-3270. An Affirmative Action/Equal Opportunity Employer.**

ASSISTANT PROFESSOR. Tenure track. Biology Department, California State University, Dominguez Hills (CSUDH). Qualifications: Ph.D. in anatomy, clinical parasitology, or histology with teaching experience in two of these areas, or molecular/cellular immunology and biotechnology with teaching experience. Commitment to quality teaching, advising, and scholarship. Preference to candidates with teaching experience in microbiology, cell and tissue culture, microtechnique, or related areas, and to those able to apply modern techniques in their research. Send application letter, curriculum vitae, and three letters of reference by 31 January 1990 to: **Dr. Robert V. Giacosis, Chairman, Department of Biology, California State University, Dominguez Hills, 1000 East Victoria Street, Carson, CA 90747.**

ASSISTANT PROFESSOR GENETICIST

The University of Hartford Department of Biology is inviting applications for a full-time, tenure-track position beginning September 1990. Teaching responsibilities include undergraduate genetics, general biology, and a graduate course in the candidate's area of specialization. The successful applicant is expected to develop a research program with potential for external funding. Although preference will be given to those with a background in molecular biology, those with experience in other areas of genetics are encouraged to apply. The screening process begins 1 December 1989 and will remain open until the position is filled. Send curriculum vitae, a statement of research interests, and the names of three references to: **Search Committee Chairperson, Department of Biology, University of Hartford, West Hartford, CT 06117.**

The University of Hartford is an Equal Opportunity/Affirmative Action Employer and specifically invites and encourages applications from women and minorities.

ASSISTANT PROFESSORS TENURE TRACK DEPARTMENT OF PHARMACOLOGY THE UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE

The University of North Dakota invites applications and nominations for three tenure-track faculty positions in the Department of Pharmacology at the rank of Assistant Professor. The positions are full-time 12-month appointments completely funded by state-appropriated monies to the University of North Dakota Medical Center. A competitive start-up package is available. Candidates should have an M.D. and/or Ph.D. in Pharmacology or a related area. He/she should present evidence of strong teaching credentials and the ability to initiate or transfer a vigorous and extramurally funded research program in an area of pharmacology suitable toward graduate education within the Department and the University. Candidates should provide a letter of application, curriculum vitae, a comprehensive statement of research plans and objectives, representative publications, and the names, addresses, and telephone numbers of three individuals from whom the candidate has requested letters. The application materials and reference letters should be sent to: **Dr. David W. Hein, Professor and Chairman, Department of Pharmacology, University of North Dakota School of Medicine, 501 North Columbia Road, Grand Forks, ND 58203.** Review of the completed applications will begin 15 December 1989 and continue until the three positions are appointed. The positions are available immediately and should be filled no later than 1 July 1990. *The University of North Dakota is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR

Physiologist position requires doctorate with research experience, ability to teach mammalian or human physiology course, develop courses in area of specialty, and conduct research, etc. Send curriculum vitae with publication list, unofficial transcripts, a summary of teaching and research, and have three letters of recommendation submitted by 1 January 1990 to: **Reed P. Warren, Ph.D., Chairman, Search Committee, Biology Department, Utah State University, Logan, UT 84322-6895.**

USU is an Affirmative Action/Equal Opportunity IRCA Employer.

The University of Scranton, a Jesuit university in northeastern Pennsylvania, is offering a tenure-track position, at the rank of **ASSISTANT PROFESSOR**, for a virologist/molecular biologist, starting September 1990. Candidate should have a strong commitment to teaching undergraduate students. The successful candidate will be expected to conduct research and teach general biology and virology. Ph.D. required.

Send curriculum vitae and three letters of recommendation to: **Dr. Vito G. DelVecchio, Department of Biology, University of Scranton, Scranton, PA 18510-2192.**

The University of Scranton is an Affirmative Action/Equal Opportunity Employer and Educator.

ASSISTANT PROFESSOR (Ph.D.). Tennessee Technological University is seeking a wildlife biologist with specialty in mammalian ecology to fill a tenure-track position in the Department of Biology beginning August 1990. The individual should be qualified to teach graduate- and undergraduate-level courses in wildlife science, ecology, and general biology, and will be expected to direct the research of graduate students and carry out a program of research and scholarly activity. Candidates should have a demonstrated record of research activity and be committed to teaching excellence. Salary will be commensurate with experience and qualifications. Closing date is 15 December 1989 or until filled. Applicants should send letter of application; complete résumé; academic transcripts; and names, addresses, and telephone numbers of four references to: **Dr. John W. Harris, Search Committee, Department of Biology, Box 5063, Tennessee Technological University, Cookeville, TN 38505. Tennessee Technological University is an Affirmative Action/Equal Opportunity Employer.**

The David Mahoney Institute of Neurological Sciences (INS) of the University of Pennsylvania invites applications for a tenure-track position in systems neurobiology at the rank of **ASSISTANT PROFESSOR**. Ideally, the candidate should be working at the tissue level, perhaps with a "slice" preparation, and should be able to interact with and strengthen our current substantial representation in research on vision and learning and on neural development. Candidates should send curriculum vitae, a statement of current research interests, and the names of three individuals willing to provide letters of evaluation by 15 December 1989 to: **Professor Peter Sterling, Systems Neuroscience Search, Department of Anatomy, University of Pennsylvania, Philadelphia, PA 19104-6058. An Equal Opportunity/Affirmative Action Employer.**

UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA) SCHOOL OF MEDICINE ASSISTANT PROFESSOR OF BIOLOGICAL CHEMISTRY/LBES

Joint tenure-track appointments in the Department of Biological Chemistry and the Laboratory of Biomedical and Environmental Sciences (LBES). The appointment will include research funds available through the Department of Energy. Applications in all areas of cell and molecular biology are welcome, but candidates with interests in eukaryotic cell cycle control, DNA replication, DNA repair, and related areas are particularly encouraged to apply. Submit curriculum vitae, a brief description of research interests, and names and addresses of three references to: **Harvey R. Herschman, Chair, Search Committee, Department of Biological Chemistry, UCLA School of Medicine, Los Angeles, CA 90024-1737. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

The Department of Psychology at Northeastern University has three tenure-track **ASSISTANT PROFESSORSHIPS** in psychopharmacology, psycholinguistics, and vision. A strong commitment to excellence in research and teaching is required. Postdoctoral experience is preferred. Send curriculum vitae, representative reprints, and three letters of recommendation to: **The Department of Psychology, Northeastern University, 360 Huntington Avenue, Boston, MA 02115.** Application deadline is 19 January 1990. *An Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF GENETICS

Tenure track. Strong molecular background, immunology or development specialty desirable. Teaching responsibilities include genetics lecture and laboratory, introductory biology courses, and other courses in specialty. Research expected. *Women and minorities are encouraged to apply.* Send résumé and three letters of recommendation to: **Dr. Sandra Winicur, Biology, Indiana University at South Bend, P.O. Box 7111, South Bend, IN 46634. Telephone: 219-237-4356.** Deadline for application is 30 December 1989 or whenever job is filled. *Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR VISUAL CORTICAL NEUROPHYSIOLOGY

Applications are invited for a tenure-track position in the Department of Neuroscience at the University of Florida College of Medicine in Gainesville. Applicants should have an M.D. or Ph.D. and postdoctoral experience. Evidence of an active, independent research program in the awake behaving primate would be particularly welcome. Anticipated start date will be 1 July 1990. Please send curriculum vitae, statement of research interests, and three letters of reference before 1 December 1989 to: **Christiana M. Leonard, Chair, Visual Neuroscience Search Committee, Department of Neuroscience, Box J-244, J. Hillis Miller Health Center, Gainesville, FL 32610-0244. An Equal Opportunity/Affirmative Action Employer.**

ASSISTANT OR ASSOCIATE PROFESSOR EVOLUTIONARY/POPULATION GENETICS

Tenure-track position open September 1990 for an evolutionary or population geneticist. Postdoctoral experience desirable. Expected to develop a productive research program and interact with strong marine ecology and molecular genetics groups in the department. Application of molecular methodology to field populations is of particular interest. Generous start-up funding and other allowances negotiable. Graduate and undergraduate teaching responsibilities. Send résumé and publications. Three or more reference letters from professional associates requested. Application deadline 1 December 1989 to: **Dr. Sarah Woodin, Chair, Population Genetics Search Committee, Department of Biological Sciences, University of South Carolina, Columbia, SC 29208. Telephone: 803-777-5084.**

An Equal Opportunity/Affirmative Action Employer.

ASSISTANT OR ASSOCIATE PROFESSOR OF ANATOMY. The Department of Anatomy, The Ohio State University, is seeking exceptional candidates to fill a tenure-track position in cell biology. Applicants should have a Ph.D. or M.D. degree and a minimum of 2 years of postdoctoral experience. A successful candidate must have a strong record of scientific accomplishments and the ability to develop an independent research program. The department presently has an interactive group of cell biologists interested in synaptogenesis, receptor localization, cellular communication, molecular development, and immunobiology. Preference will be given to candidates with research expertise in the use of molecular and/or cellular approaches in their research. Additional responsibilities include contributions to team teaching efforts in professional and graduate education. Curriculum vitae, brief statement of research interests, and three letters of recommendation should be sent by 1 February 1990 to: **James S. King, Ph.D., Professor and Chairman, The Ohio State University, Department of Anatomy, 4072 Graves Hall, 333 West Tenth Avenue, Columbus, OH 43210. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Minority candidates and women are encouraged to apply.**

MANAGING DIRECTOR PRODUCT DEVELOPMENT GROUP

Molecular Biosystems, Inc., a leader in genetic probe based *in vitro* diagnostics, has the following opportunity in the Product Development Group of the Diagnostics Division. We seek an individual with at least five years of experience in a commercial diagnostics company managing the development of novel *in vitro* assays. The position involves total responsibility for the development of new products and clinical trials. A Ph.D. degree in a relevant scientific area, such as Molecular Biology and/or Biochemistry is required. The successful candidate will have a proven record of creative research, project management, regulatory /FDA experience, and supervision of technical and scientific personnel. Molecular Biosystems, Inc., located in San Diego, California offers an excellent salary and benefits package with an opportunity to make major impact on the future growth of the company as a key member of senior management. For consideration, please send your resume and compensation history to:

**Molecular Biosystems, Inc.
Human Resources Department
10030 Barnes Canyon Road
San Diego, CA 92121**

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A large pharmaceutical research center near Paris, known for its numerous therapeutic innovations, is undertaking a vigorous expansion of its chemistry research laboratories and seeks to recruit :

MEDICINAL CHEMISTS

Candidates must possess extensive experience in drug research and development in an industrial context.
The means and remuneration offered to successful candidates who wish to join our research teams are substantial.
Persons interested in these positions should submit a C.V., recent publications and a statement of professional aspirations to Média-System, 6 impasse des Deux Cousins, 75017 Paris, France, under the reference 63517

MÉDIA-SYSTEM



GLAXO INSTITUTE FOR MOLECULAR BIOLOGY

The Geneva biotechnology research unit of the largest U.K. pharmaceutical group is recruiting

CELLULAR-IMMUNOLOGIST

**to study the role of cell surface membrane molecules
in adhesion and extravasation**

The successful applicant will be expected to contribute substantially to driving the cell biology research in this program and will interact closely with molecular biologists in the research team. The ideal candidate will have a PhD and several years of postdoctoral experience with a significant publication record. Additional experience in related disciplines would be an advantage.

The Glaxo Institute for Molecular Biology carries out basic long term innovative research directed to facilitate the process of drug discovery. The Institute has an international staff of over one hundred, grouped in small multidisciplinary teams.

We offer an excellent salary and benefits package, with opportunities for career development in one of the most attractive parts of Europe.

If you are interested in this position, please send your Curriculum vitae with a list of publications and the names of three references to : Rita Gloor, Personnel Manager, GLAXO IMB S.A., 46, route des Acacias, 1211 Geneva 24, Switzerland.

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR MEDICAL COLLEGE OF OHIO

The Department of Surgery, Medical College of Ohio, is searching for a G.I. (preferably hepatic) physiologist. Tenure-track position with opportunity for independent research program. Address inquiries (please include curriculum vitae) to: **Neil R. Thomford, M.D., Chairman, Department of Surgery, Medical College of Ohio, P.O. Box 10008, Toledo, OH 43699-0008. The Medical College of Ohio is an Equal Opportunity Employer.**

ASSISTANT OR ASSOCIATE PROFESSOR OF ANATOMY

Applications are invited for tenure-track positions at the assistant or associate professor level. Applicants at the assistant professor level should have a Ph.D., M.D., or equivalent, postdoctoral experience, an active research program with a high potential for attracting external support, and promise of ability as a teacher. Applicants at the associate professor level should have an ongoing externally funded research program, an established record of scholarship supported by substantial publications, teaching experience, and a record of successful direction of doctoral candidates. Specific research areas are open, although preference will be given to cellular and molecular biology. Areas of specific teaching expertise are also open, although experience in or ability to teach gross human anatomy is highly desirable.

Send curriculum vitae, bibliography, a brief statement of research and teaching experience, plus names of three references to: **Chair, Anatomy Faculty Search Committee, The University of Iowa College of Medicine, Iowa City, IA 52242.**

The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

ASSOCIATE PROFESSOR CELL PHYSIOLOGY

The Department of Physiology at the University of Minnesota invites applicants for a tenured appointment at the level of associate professor in cell physiology beginning immediately. Selection will be based primarily on demonstrated excellence in an established, independent research program that is compatible with other departmental programs. Preference will be given to the area of vision neurophysiology at the retinal level.

A tenure appointment requires that the applicant demonstrate a national and international reputation in research and experience and proficiency in teaching. The applicant will be expected to participate in the teaching and graduate education programs in the department. The last date for receipt of applications has been extended to 15 December 1989. Send curriculum vitae and a description of current research program to: **Dr. Richard Poppe, Department of Physiology, 6-255 Millard Hall, 435 Delaware Street, S.E., University of Minnesota, Minneapolis, MN 55455.**

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

ASSISTANT/ASSOCIATE PROFESSOR IN IMMUNOLOGY

The Immunology Unit of the Toronto Hospital Arthritis Center and the Department of Immunology, University of Toronto, wish to recruit an **ASSISTANT OR ASSOCIATE PROFESSOR** to join a multidisciplinary research group with interest in the cellular and molecular aspects of the immune response. We seek to bring together molecular biology, cellular immunology, microbiology, and immunogenetics in the study of the pathogenesis of immunological diseases. Applications are invited from researchers with Ph.D. or M.D. degrees with appropriate postdoctoral research training.

Canadian immigration guidelines require that consideration in the first instance be given to Canadian citizens and permanent residents of Canada.

Inquiries and applications (curriculum vitae and names of three references) should be addressed to:

Dr. R. D. Inman
Department of Medicine and Immunology
Toronto Western Hospital
399 Bathurst Street
Toronto, Ontario
Canada M5T 2S8
FAX: 416-369-6477

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR. University of Nebraska Medical Center (UNMC) College of Dentistry, Department of Oral Biology (physiologist/oral biologist), has a 12-month tenure-leading position in a multidisciplinary basic science department. Responsibilities include undergraduate and graduate teaching in physiology and establishment of an active research program. Ph.D. or equivalent degree required. Postdoctoral experience preferred. Salary and rank commensurate with background, training, and experience. Application deadline: 1 March 1990 or thereafter until position is filled. Starting date: 1 August 1990. Send curriculum vitae and three letters of reference to: **Search Committee, Position #9-6236, UNMC College of Dentistry, 40th and Holdrege, Lincoln, NE 68583-0740.**

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

The Department of Pathology, Medical College of Georgia, Augusta, Georgia, invites applications for a tenure-track faculty position at the rank of **ASSOCIATE PROFESSOR OR PROFESSOR**. The applicant should have a M.D. or Ph.D. degree with training and experience in molecular biology, molecular genetics, and/or immunopathology. In addition to participation in the graduate and undergraduate educational programs, the successful candidate will establish an independent or collaborative extramurally funded research program. Applicants should submit detailed curriculum vitae, names and telephone numbers of three references, and a statement of personal and professional goals to: **R. N. Rao, M.D., Chief, Section of Anatomic Pathology, Medical College of Georgia, Augusta, GA 30912-3605.**

Equal Opportunity/Affirmative Action Employer.

University of California, Irvine, Department of Medicine, is seeking a full-time appointment at the level of **ASSISTANT OR ASSOCIATE ADJUNCT PROFESSOR** in the nephrology division to supervise the renal physiology laboratory and coordinate bone and stone program. Duties include teaching and research. Please send curriculum vitae to: **N. D. Vaziri, M.D., Chief, Renal Division, University of California Medical Center, Building 53, Route 81, 101 City Drive South, Orange, CA 92668. Affirmative Action/Equal Opportunity Employer.**

BIOCHEMIST, ASSISTANT PROFESSOR. Full-time, tenure-track appointment (9 months). Appointment will teach graduate and undergraduate students and develop an active, extramurally funded research program. Research in some area of protein structure and function should complement interests of existing faculty. Qualifications: At least 2 years of postdoctoral research experience in biochemistry, chemistry, molecular biology, or related field. Letter of interest; curriculum vitae; names, addresses, and telephone numbers of three professional references; and a two- or three-page statement of research plans should be sent to:

Dr. Donald J. Reed
Chairman, Search Committee
Department of Biochemistry and Biophysics
Oregon State University
Weniger 535
Corvallis, OR 97331-6503

Oregon State University is an Affirmative Action Equal Opportunity Employer, and complies with Section 504 of the Rehabilitation Act of 1973. Oregon State University is sensitive to the needs of dual career couples.

BIOLOGY. Assistant professor, tenure-track position. Ph.D. required. Broadly trained eukaryotic molecular biologist, preferably experienced with plants and possessing computer competency. Preference given to candidates with teaching and/or recent postdoctoral experience. Successful applicant expected to teach molecular biology, botany, and general biology courses for majors and nonmajors. Primary interest and commitment to quality undergraduate instruction plus supervision of an active undergraduate research program is expected. Applications, consisting of teaching and research interests, curriculum vitae, transcripts, and three letters of recommendation should be submitted to: **Dr. D. W. Farmer, Vice President and Dean for Academic Affairs, King's College, 133 North River Street, Wilkes-Barre, PA 18711. Application deadline: 22 December 1989. King's College is an Equal Opportunity Employer and specifically invites and encourages applications from women and minorities.**

POSITIONS OPEN

BIOLOGIST. The Biology Department of William Jewell College invites applications for a tenure-track **ASSISTANT/ASSOCIATE PROFESSORSHIP** in biology beginning fall 1990. The applicant should have a broad background in biology with expertise in physiology. A Ph.D. is required, as is a strong commitment to teaching and directing undergraduate research. *Women and minorities are strongly encouraged to apply.* Address letters of application by 30 November 1989 to: **Dr. Judith Dilts, Chairman, Department of Biology, William Jewell College, Liberty, MO 64068. Telephone: 816-781-7700, ext. 5661. Affirmative Action/Equal Opportunity Employer.**

BIOLOGY, TENURE-TRACK POSITION

Ph.D. with experience in introductory biology; some combination of botany/genetics/molecular biology desired. Strong commitment to undergraduate teaching, advising, and research. Salary and rank negotiable. Send curriculum vitae, transcripts, three letters of reference, and a one-page statement on the role of biology in a liberal arts education to: **Dr. Bradley Bowden, Division of Biology, Alfred University, Alfred, NY 14802, by 31 December 1989. Affirmative Action/Equal Opportunity Employer.**

BIOLOGY

The Department of Biology seeks a full-time tenure-track faculty member at the **ASSISTANT OR ASSOCIATE PROFESSOR** level for fall 1990. The candidate should possess an earned doctorate and have a record of successful teaching experience. Primary competency should be in cellular biology; secondary competency in microbiology, or a willingness to develop such competency, is desirable. Complete applications include a letter of application, a current résumé, and three letters of recommendation and will begin to be considered by 30 December 1989. Position remains open until filled. Send to: **Dr. Harry Taylor, The Dean's Office, Regis College, Denver, CO 80221. An Equal Opportunity Employer.**

BIOLOGIST

Hampden-Sydney College seeks to fill a newly created tenure-track position at the **ASSISTANT PROFESSOR** level, to start in August 1990. Applicants must hold a Ph.D. in a biological science, should enjoy teaching a wide range of undergraduate biology courses, should have a commitment to liberal arts education, must be able to maintain a research program appropriate to a 4-year college, and will be expected to teach at least half of their hours at the introductory level. Hampden-Sydney College, located in rural south central Virginia, is the nation's tenth oldest institution of higher education. It is a selective liberal arts college for men with an enrollment of 950. The Department of Biology has five faculty members with specialties in: biochemistry and genetics; animal physiology and anatomy; invertebrate and evolutionary biology; cell and plant biology; and ecology and marine biology. The department graduates about 20 majors each year. Applicants should send curriculum vitae and three letters of recommendation to: **Dr. S. R. Gemborys, Chairman, Department of Biology, Hampden-Sydney College, Hampden-Sydney, VA 23943. The application deadline is 15 December 1989. Hampden-Sydney is an Equal Opportunity/Affirmative Action Employer.**

BIOLOGICAL OCEANOGRAPHER

The Department of Organismic and Evolutionary Biology and the Committee on Oceanography at Harvard University seek to make an appointment in biological oceanography at the rank of **ASSISTANT PROFESSOR**. Preference will be given to candidates with interests in phytoplankton processes. In addition to research interests in oceanography, the applicants should be prepared to teach oceanography at the undergraduate and graduate levels and in the area of phyecology at the introductory level. Applicants should send curriculum vitae, statement of research interests, and the names of three references to: **James J. McCarthy, Chairman, Search Committee for Biological Oceanography, MCZ, Harvard University, Cambridge, MA 02138. Harvard University is an Affirmative Action/Equal Opportunity Employer.**

Opportunities Available in Molecular Genetics

SmithKline Beecham Pharmaceuticals is among the world's top research and development companies. Our U.S. Research & Development Division consists of over 1500 scientists working in a state-of-the-art facility located in suburban Philadelphia, PA.

We are seeking Molecular Biologists at various levels to join the Molecular Genetics Department which, together with the Gene Expression Sciences Department, comprises a group of over 60 scientists using recombinant DNA technology to generate novel therapeutic agents.

The following positions are available:

Receptor Molecular Biologist

The successful candidate will work initially to clone the TNF receptor(s) and on structure-function analysis of the TNF receptor-ligand interaction. The ultimate objective is the generation of small molecule antagonists and/or agonists.

The successful candidate will have:

- A Ph.D. in Molecular Biology with at least two years of Postdoctoral experience
- Familiarity with all methods of modern molecular biology
- Experience with the cloning of receptors would be a major advantage
- Experience with expression cloning, subtractive hybridization, PCR, cell sorting or transgenics would be considered relevant

Please refer to Job #S0110

Postdoctoral Molecular Biologist

The successful candidate will study cell adhesion and integrin-receptor interactions, including receptor purification, characterization and cloning.

The successful candidate will have:

- Ph.D. in Molecular Biology or Immunology
- Strong background in recombinant DNA methodologies
- Experience in receptor purification and characterization preferred

Please refer to Job #S0111

Molecular Biologists - 3 Positions

We are seeking scientists to perform experiments in Molecular Genetics or Molecular Biology.

Successful candidates will have:

- B.S./M.S. in Biochemistry/Biology with at least 1-2 years experience
- Experience in recombinant DNA techniques
- Experience with PCR machine is desired for one position

Please refer to Job #S0112

We offer the opportunity for growth in a scientifically intense environment structured on creativity, teamwork and commitment. Please send your C.V. to Ms. Barbara J. Schwartz, Employment Administrator, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer. M/F/H/V.



SmithKline Beecham
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POSITIONS OPEN

CELL BIOLOGIST YALE UNIVERSITY SCHOOL OF MEDICINE

The Department of Cell Biology, Yale University School of Medicine, is accepting applications for tenure-track positions at the **ASSISTANT, ASSOCIATE AND PROFESSORIAL** levels with a flexible starting date. The department's new laboratory facilities will enable us to expand and complement our existing strong research base. Candidates with an interest in developmental biology; regulation of cell growth and differentiation; interactions between the extracellular matrix, membranes, and cytoskeleton; organelle biogenesis and trafficking; and image analysis at the light and electron microscopic levels are encouraged to apply. It is anticipated that successful candidates will establish independent, externally funded research programs. The department requires teaching of cell biology and histology to medical students and supervision of our graduate students. Candidates must hold the Ph.D. or M.D. degrees and have at least 2 years of postdoctoral experience.

Applicants should submit curriculum vitae, statement of research and teaching interests, and names of three references to:

Dr. James D. Jamieson, Chairman
Department of Cell Biology
Yale University School of Medicine
333 Cedar Street
New Haven, CT 06510-0082

Yale University is an Equal Opportunity/Affirmative Action Employer.

The University of Western Ontario invites applications for the position of **CHAIR OF THE DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY**. Candidates must have a Ph.D. and/or M.D. and a strong, continuing record of research accomplishments. The successful candidate will be expected to maintain a vigorous research program in an area appropriate to current departmental research efforts and to offer leadership in the continued development of outstanding programs for research and education in the biomedical sciences.

The department includes 16 full-time and 18 part-time faculty members and is responsible for undergraduate and graduate courses in microbiology and immunology in the Faculties of Medicine, Dentistry, Science, Nursing, and Graduate Studies. Major research efforts within the department encompass bacteriology, virology, immunology, and genetics of prokaryotes and eukaryotes, with particular emphasis on molecular biology.

Closing date for applications: 30 December 1989.

Applications, including curriculum vitae, complete publication list, and the names and addresses of several references should be directed to:

Dr. L. S. Valberg, Dean
Faculty of Medicine
The University of Western Ontario
London, Ontario N6A 5C1, Canada

In accordance with Canadian immigration requirements this advertisement is directed to Canadian citizens and permanent residents of Canada. The University of Western Ontario is an Equal Opportunity Employer.

CHAIRPERSON DEPARTMENT OF BIOLOGY

The University of Houston, (UH) seeks an outstanding individual to provide leadership for the future development of the research and teaching programs of the Department of Biology. The successful candidate is expected to continue an excellent program of externally funded research achievement at UH. The new chairperson will provide direction in recruiting faculty to fill currently open positions as well as future positions resulting from both growth and expected retirements. The Department of Biology currently has 23 faculty members and 60 graduate students in M.S. and Ph.D. programs representing a broad range of biological sciences. The department is housed on an attractive 500-acre campus in a modern building with excellent research facilities. The University of Houston is a state-supported institution which currently attracts over \$30 million in extramural research support annually. Candidates should submit curriculum vitae and names of four references by 30 November 1989 to: **Ron Burton, Chairperson, Search Committee, Department of Biology, University of Houston, Houston, TX 77204-5513.** UH is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

CHEMICAL PALEOBIOLOGY OR QUANTITATIVE GEOMORPHOLOGY. The Department of Geology, University of North Carolina-Chapel Hill, invites applications for a tenure-track, **ASSISTANT PROFESSOR** position (senior appointment possible for exceptional candidate with appropriate experience). Research interest either: (i) chemical paleobiology (e.g., trace element/isotope geochemistry, paleoclimatic modeling, biogeochemistry) or (ii) quantitative geomorphology (e.g., sediment transport processes, fluvial fluid dynamics, geohydrology). Appointment effective 1 July 1990.

The successful applicant will initiate and maintain funded research, teach graduate and undergraduate courses, and supervise theses.

Submit names and addresses of four references, current curriculum vitae, and statement of research interests to: **Dr. P. G. Feiss, Chairman, Mitchell Hall CB# 3315, University of North Carolina, Chapel Hill, NC 27599.** Complete applications by 15 December 1989.

The University of North Carolina-Chapel Hill is an Equal Opportunity/Affirmative Action Employer.

CHIEF, DEPARTMENT OF BREAST SURGERY. Roswell Park Cancer Institute is seeking a chief of the Department of Breast Surgery who will have responsibilities for the administration of the department and the treatment of breast cancer. The candidate must be Board-certified in general surgery, have strong qualifications as an established research investigator in oncology, and have substantial academic credentials to qualify for an appointment on the faculty of the State University of New York at Buffalo School of Medicine and Biomedical Sciences. Apply by sending curriculum vitae to: **Andrew A. Gage, M.D., Deputy Institute Director, Roswell Park Cancer Institute, Elm and Carlton Streets, Buffalo, NY 14263.** Roswell Park is an Affirmative Action Employer.

CURATOR, HERBARIUM

The University of Colorado Museum and the Department of Environmental, Population, and Organismic Biology of the University of Colorado, Boulder, invite applications for a joint tenure-track, fiscal-year (11-month) appointment as curator of the Herbarium (450,000 specimens, emphasizing mountainous areas of the world). Assistant professor preferred, but candidates at all levels will be considered. Primary responsibilities will be to curate the Herbarium, to conduct an active, field-oriented research program on the systematics and floristics of vascular plants, and to teach undergraduate and graduate courses in areas of specialty. Applicants must have the Ph.D. degree (or equivalent) and a record of published research; applicants with appropriate curatorial experience will be given preference. *The University of Colorado at Boulder has a strong institutional commitment to the principle of diversity in all areas. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities, and disabled individuals.* Curriculum vitae, representative publications, and names of five individuals from whom letters of reference have been requested may be sent to: **Herbarium Search Committee, University of Colorado Museum, Box 218, University of Colorado, Boulder, CO 80309-0218.** Applications must be received by 15 December 1989.

DIRECTOR BONE MARROW TRANSPLANT CENTER

The University of Wisconsin, with a strong clinical program in bone marrow transplantation, is embarking on a plan to expand clinical activities and develop a major recognized center for marrow transplantation-related scientific research. A faculty position is being offered at the tenured level in the Department of Medicine. We are seeking an individual with a productive laboratory research program or an exemplary clinical researcher. The successful candidate will have the opportunity to develop and coordinate a strong research program utilizing the considerable scientific resources available on the University of Wisconsin-Madison campus and within the Wisconsin Clinical Cancer Center. Please send a letter of inquiry and curriculum vitae to: **Dr. Walter Longo, Bone Marrow Transplant Search Committee, H4/540 CSC, University of Wisconsin Hospital, 600 Highland Avenue, Madison, WI 53792.** The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

CHIEF LIBRARIAN, Museum Support Center Branch, Smithsonian Institution Libraries. Experienced librarian to provide reference service and administer collections in support of scientific staff engaged in research in the natural sciences, museum conservation science, and related fields. Highly service-oriented; demonstrated knowledge of and experience with reference tools in the natural sciences or material conservation sciences and literature searching on commercial databases. ALA-accredited, M.L.S. preferred. Salary range: \$28,852 to \$34,580, depending on experience and qualifications. Applications must be received by 15 December 1989. **Office of Personnel Administration, Branch 3, P.O. Box 23294, Washington, DC 20026-3293.** The Smithsonian Institution is an Equal Opportunity Employer.

COGNITIVE NEUROSCIENTIST

Tenure-track assistant professor position in cognitive neuroscience available fall of 1990. Outstanding senior applicants also considered. Selected candidate will be a member of Department of Psychology (Psychobiology Program) and the Cognitive Science Center. Seek outstanding applicants who have demonstrated independent research. Specific area should include both a cognitive and basic neuroscience orientation. Candidate will be involved in promoting interactions between the cognitive and neuroscience programs through the Cognitive Science Center. Applicants should send curriculum vitae, selected publications, and three letters of reference to: **Dr. John Bruno, Department of Psychology, 1885 Neil Avenue, Ohio State University, Columbus, OH 43210.** Ohio State University is an Equal Opportunity/Affirmative Action Employer. Deadline: 31 December 1989.

DEVELOPMENTAL BIOLOGIST. The Department of Biology at Swarthmore College invites applications for a 1-year faculty position, preferably at the **ASSISTANT PROFESSOR** level, beginning September 1990. We seek applicants with a Ph.D. in animal or plant developmental biology who have research experience and a strong interest in undergraduate teaching. Teaching includes developmental biology, an advanced seminar in the area of specialty, and participation in introductory biology. Interested individuals should submit: (i) curriculum vitae, (ii) three letters of recommendation, and (iii) a statement of teaching and research interests by 1 January 1990 to: **Dr. Scott F. Gilbert, Department of Biology, Swarthmore College, Swarthmore, PA 19081.** The search will continue until the position is filled.

Swarthmore College is an Equal Opportunity Employer.

ECOLOGICAL ANTHROPOLOGIST

The University of Georgia, Department of Anthropology and Linguistics, announces a newly created program in ecological anthropology and invites applications for a tenure-track position as professor and head of the department from scholars of recognized distinction with primary interests in ecological anthropology. Salary competitive. The individual chosen will play a major role in the development of the ecological anthropology program and the selection of the successful candidates for two tenure-track positions in ecological anthropology. The new head will also work closely with the University of Georgia's Institute of Ecology. Deadline for applications is 15 December 1989. Candidates should send a letter of applications, curriculum vitae, and names of four referees to: **Chair, Search Committee, Department of Anthropology and Linguistics, University of Georgia, Athens, GA 30602.** The University of Georgia is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.

ENDOCRINOLOGY/METABOLISM FACULTY POSITION. The Division of Endocrinology/Metabolism has an opening for a faculty member at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. Candidates should have a strong research background in diabetes or lipid research and interest in clinical research in an eight-bed National Institutes of Health-funded General Clinical Research Center. Send curriculum vitae and inquiries to: **Guenther Boden, M.D., Chief, Division of Endocrinology/Metabolism, Director, General Clinical Research Center, Temple University Hospital, 3401 North Broad Street, Philadelphia, PA 19140.** An Equal Opportunity/Affirmative Action Employer.



NASA

Federal Senior Executive

(Salary Range: \$68,700-\$80,700)

(Location: Greenbelt, MD)

The Goddard Space Flight Center is seeking qualified candidates for the position of Chief, Laboratory for Atmospheres. The Laboratory conducts research seeking to advance the state of knowledge in the planetary and earth atmospheric systems through the application of remote sensing and other space technology. The incumbent will provide leadership in planning, directing, implementing, and assessing a large range of basic and applied research programs.

Applicants must possess a Doctorate or equivalent experience in the physical sciences, mathematics, or engineering. Must have demonstrated ability to provide program leadership, and to direct and participate in specialized programs and projects in atmospheric research.

Candidates should submit a résumé and/or Application for Federal Employment (SF-171), and a record of publications to Ms. Dianne Hagerty, NASA, Goddard Space Flight Center, Code 111.3A, Greenbelt, MD 20771, by November 30, 1989. For additional information and statement of required qualifications, contact Ms. Hagerty at (301) 286-8319. Equal Opportunity Employer. United States Citizenship Required.

UNIT LEADER DRUG METABOLISM

Wyeth-Ayerst Laboratories has an immediate opening for a Ph.D research scientist to lead a unit in its Drug Metabolism Division in Princeton, New Jersey.

This position requires an experienced investigator to study the metabolism and pharmacokinetics of developmental drugs. The candidate must have a strong background in chromatographic methods of analysis, isolation (from biological samples) and structure elucidation of metabolites, experience in radiometric techniques, and excellent oral and written communication skills. This position requires supervisory experience and a Ph.D in Chemistry or Biochemistry with at least 5 years post-doctoral experience in a relevant drug metabolism field.

Wyeth-Ayerst offers an excellent salary and benefits package with opportunities for career advancement. Interested candidates should submit a resume with salary history to:

Personnel Manager, Dept. SS-2562

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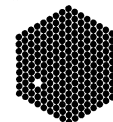
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**Laboratoire Européen de Biologie Moléculaire
European Molecular Biology Laboratory
Europäisches Laboratorium für Molekularbiologie**



EMBL, an international research organization situated in Heidelberg, West Germany, has the following vacancy:

ELECTRONIC ENGINEER

The successful candidate will join a group in our Scientific Programme "Physical Instrumentation" working on the development of Electron Microscopes. He/she will have experience in the development and construction of analog as well as digital electronic components.

A background in the field of very high stable voltage and power supplies would be an advantage. English is the working language but some knowledge of German would help.

We offer an above-average salary, plus certain allowances depending on personal circumstances.

Please write briefly for an application form, quoting reference number 89/39 to the address below.

EMBL

**EMBL, Personnel Section
Postfach 10.22 09 · D-6900 Heidelberg
Federal Republic of Germany**

POSITIONS OPEN

Full-time position for an **ELECTRON MICROSCOPIST**. Individual must be familiar with modern techniques in electron microscopy and immunocytochemistry, including thin sectioning, negative staining, and immunoelectron localization procedures. M.S. or Ph.D. or equivalent experience in cell biology required. Permanent position, available 30 November 1989. Send résumé, including at least three references, to: **Muscle Biology Group, University of Arizona, Tucson, AZ 85721**. *Equal Opportunity/Affirmative Action Employer.*

ELECTRON MICROSCOPIST CELL BIOLOGIST

Establishment of Electron Microscopy Unit: (i) independent scientific program in the area of non-erythroid spectrin function and organization and (ii) interaction on a collaborative basis with other staff in cancer research problems related to ultrastructural localization of oncogene products, anticancer drugs, and membrane-associated proteins. Applicants should have Ph.D. in biochemistry with 1 to 2 years of experience, including expertise in electron and light microscopy, autoradiography and immunocytochemistry, and specialized-biochemical techniques. Applicant must present documented list of publications in this field. Salary \$40,000. Send résumé to:

New York State Job Service
68 West Huron Street
Buffalo, NY 14202
Attention: Order #0106639

EXPERIMENTAL PATHOLOGIST, ASSISTANT OR ASSOCIATE PROFESSOR level. Growing department needs experimentalists interested in either mechanisms of cell injury or molecular pathology. We can provide space, equipment, and competitive salaries for the right people. Send curriculum vitae to: **Dr. S. Bloom, Department of Pathology, University of Mississippi Medical Center, Jackson, MS 39216**. *An Equal Opportunity Employer, M/F/H/V.*

FACULTY POSITION IN NEUROSCIENCE. Applicant should have an independent research program and an interest in some collaboration with a group interested in neuronal growth and regeneration. Possible areas of interest: molecular biology or biochemistry of neuronal macromolecules; tissue culture/cell immortalization; and properties of extracellular matrix/function. The neurosciences program is a small, highly interactive group with an active graduate program and opportunities for a moderate amount of teaching. One focus for research is the olfactory system. New laboratories are available. Please send curriculum vitae, outline of research interests, and the names of three references by 1 December 1989 to: **Dr. Barbara Talamo, Neurosciences Program, Tufts Medical School, 136 Harrison Avenue, Boston, MA 02111**. *Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN BIOCHEMISTRY DEPARTMENT OF BIOLOGY UNIVERSITY OF UTAH

As part of a campus-wide expansion in the area of biochemistry and molecular biology, the Department of Biology seeks applications for a tenure-track **ASSISTANT PROFESSOR** position in biochemistry, but will not exclude a higher rank if the right person is found. We hope to appoint an individual who has both basic training and current research interest in fundamental biochemistry and is able to teach biochemistry effectively. Research interest may include work on any biological process (in microorganisms, plants, or animals), but the approach should be biochemical. This individual should be able to interact productively with faculty and students having a wide range of research interests. In addition to biochemistry, the department includes molecular biology, cell biology, and genetics as well as organismal physiology, ecology, and evolution. Application review will start 1 January 1990 and continue until the position is filled. Applicants should submit curriculum vitae, description of research interests, and three letters of reference to: **Biochemistry Search Committee, Department of Biology, 201-S Biology, University of Utah, Salt Lake City, UT 84112**.

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

POSITIONS OPEN

FACULTY POSITIONS, GEOSCIENCES

The University of California at Irvine is creating a new department for graduate study and research in the geosciences. Initial emphasis will be on detecting, understanding, and predicting changes in global and regional climate; the chemical composition of the atmosphere, and biogeochemical cycles. Scientists in these sub-disciplines and in related fields are sought for academic appointments as **ASSISTANT, ASSOCIATE, AND FULL PROFESSOR**. Research conducted through laboratory and field experiments, modeling, analysis, and theory will be encouraged. Three positions are available this year and others are anticipated later. Candidates must present evidence of outstanding research and publications and be recognized nationally and internationally for associate and full professor appointments; for assistant professors, there must be visible prospects for future excellence. Teaching ability is necessary and will be considered. Please send a brief statement of scientific interests and a complete résumé with a list of publications to: **Professor Ralph Cicerone, Chair, Geosciences Department, 220 Physical Sciences, University of California, Irvine, CA 92717**. Materials received before 15 February 1990 will be given full consideration. *The University of California is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

The Chemistry Department of Tulane University invites applications for two **TENURE-TRACK APPOINTMENTS** to begin 1 July 1990, contingent on administrative approval. The positions available are in (i) any area of physical biochemistry and (ii) any area of materials-related research. Ph.D. required. Duties will include teaching chemistry and/or biological chemistry at the undergraduate and graduate levels. The candidate is also expected to develop a nationally recognized independent research program. Applicants must provide curriculum vitae, statement of research plans and have three letters of reference sent. Applications for position (i) should be sent to **Physical Biochemistry Search Committee** and for position (ii) to **Materials Research Search Committee, Department of Chemistry, Tulane University, New Orleans, LA 70118**. Application deadline is 1 February 1990. *Tulane University is an Affirmative Action/Equal Opportunity Employer.*

TENURE-TRACK POSITION CELLULAR IMMUNOLOGY SANTA CLARA UNIVERSITY

Applications are invited for a tenure-track **ASSISTANT/ASSOCIATE PROFESSORSHIP** in the Department of Biology to start September 1990. A Ph.D. and teaching and postdoctoral experience are required. Duties will include teaching undergraduate courses with laboratories, in such fields as immunology, virology, cancer biology, and/or other appropriate courses. Appointee will be expected to develop a vigorous research program in cellular immunology with undergraduate participation.

The Department of Biology is within the undergraduate College of Arts and Sciences at Santa Clara University. The department and the university emphasize excellence in both teaching and research.

Send curriculum vitae, official transcripts, three letters of reference, and a summary of research interests to: **Dr. Janice Edgerly-Rooks, Department of Biology, Santa Clara University, Santa Clara, CA 95053** by 15 December 1989. *Santa Clara University, a Jesuit institution, is an Equal Opportunity/Affirmative Action Employer, Title IX M/F/H.*

The University of Iowa's College of Dentistry is presently conducting a search to fill a full-time **FACULTY POSITION** in the Dows Institute for Dental Research. Applicants must have a Ph.D. and research accomplishments that can augment the activities of the faculty of the Dows Institute. These include studies of oral soft tissues, salivary biochemistry, biomaterials and craniofacial growth, utilizing cell and tissue culture and immunological and molecular biological techniques. Academic rank and salary will be commensurate with qualifications and experience. The position will be available 1 April 1990; screening will begin immediately. Submit curriculum vitae to: **Dr. C. A. Squier, Assistant Dean for Research and Director of Dows Institute, College of Dentistry, University of Iowa, Iowa City, IA 52242**. *The University of Iowa is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

FACULTY POSITION IN BIOMECHANICS AT NORTHWESTERN UNIVERSITY

The Biomedical Engineering Department of Northwestern University and the Sensory Motor Performance Program of the Rehabilitation Institute of Chicago are seeking jointly to fill a tenure-track position in biomedical engineering at the **ASSISTANT PROFESSOR** level, for the 1990-91 academic year. Candidate should have earned a Ph.D. in engineering or in a related physical science; be knowledgeable in biomechanics, anatomy, and motor control physiology; and be prepared to teach and to conduct research in the field(s) of biomechanics and motor control. The candidate's research should complement present investigations on biomechanics of normal and pathological movement. Interested applicants should submit by 1 January 1990: curriculum vitae, outline of future research, teaching interests, and names and addresses of at least three references to: **Dr. Andrew E. Kertesz, Chairman, Biomedical Engineering Department, Northwestern University, 2145 Sheridan Road, Evanston, IL 60208-3107**. *Northwestern University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are especially encouraged to apply.*

NEUROBIOLOGY FACULTY POSITION. The Neurobiology Program invites applications for the position of **ASSISTANT PROFESSOR** from individuals with research interests in molecular, mathematical, or engineering approaches to neural systems. Applicants must have a Ph.D. and at least 2 years of postdoctoral experience. They will be expected to develop an independent, fundable research program and contribute to the teaching efforts of the program. We are especially interested in individuals who can interact effectively with existing program members. Research interests of the 14 neurobiology faculty members include: developmental neurogenetics, muscle biology and motor control, modeling peripheral sensory mechanisms and neuromuscular transmission, brain-behavior relationships, and cardiovascular control. Salaries start at \$30,000 and are commensurate with qualifications. Cost of living is moderate. Start-up funds and facilities are excellent. Applicants should send curriculum vitae, statement of research interests and teaching experience, and the names of three references by 15 January 1990 to: **E. H. Peterson, Neurobiology Program, Department of Zoological and Biomedical Sciences, Ohio University, Athens, OH 45701**. *Ohio University is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS IN BIOLOGY

Arizona State University (ASU), West Campus, invites applications to fill three positions in the life sciences:

COORDINATOR: A senior-level appointment with chair-level leadership and administrative responsibilities. Candidates must have interest in building an interdisciplinary program in the life sciences, with components in ecology and human biology. Prefer candidates with experience at the chair level in an interdisciplinary program context.

ASSISTANT/ASSOCIATE PROFESSOR: Ecologist with speciality in field studies of organisms of the Southwest at the physiological, population, or community level.

ASSISTANT PROFESSOR: Biologist with background in human physiology. Prefer candidates with expertise in the physiology of aging.

Successful candidates will have exceptional research background, outstanding teaching ability, and must have high interest in guiding and building the life sciences program at a new campus serving upper-division undergraduates and master's level students. Ph.D. in appropriate field required. Rank/salary commensurate with background and experience.

Send application letter; curriculum vitae, a statement of research and teaching interests; and names, addresses, and telephone numbers of three references by 1 December 1989 for coordinator and 15 December 1989 for biologist and ecologist to: **Dr. B. K. Sullivan, Search Committee, ASU-West Arts and Sciences, P.O. Box 37100, Phoenix, AZ 85069-7100**. Telephone: 602-543-6000. *ASU is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

TENURE-TRACK FACULTY POSITION IN NEUROSCIENCE is available at Florida Atlantic University (FAU) assigned to a new NIMH-sponsored interdisciplinary program in complex systems and the brain sciences. Level of appointment is open. We seek an outstanding individual capable of generating extramural support and wishing to research and teach in an explicitly interdisciplinary setting that includes neuroscience, cognitive science, computer science, mathematics, and physics. Two areas of research are of special interest: experimental studies of neural circuitry and its modulation that subserve pattern generation and neurophysiological correlates of human sensorimotor and cognitive function.

Salary, start-up funds, and teaching load are attractive. Please send complete curriculum vitae, representative reprints, and four letters of reference by 1 January 1990 to: **J. A. S. Kelso, Florida Atlantic University, Center for Complex Systems, P.O. Box 3091, Boca Raton, FL 33431.** FAU is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION IN NEUROANATOMY

A tenure-track position in neuroanatomy at the **ASSISTANT PROFESSOR** level is available in the Department of Behavioral Neuroscience at the University of Pittsburgh, beginning July 1990. There currently are 16 tenure-track faculty and a vigorous departmental graduate training program. Research is highly collaborative and focuses on a variety of areas in neuroscience, including the neurobiology of catecholaminergic systems, biophysical membrane properties and neuroplasticity of hippocampal neurons, the neurobiological basis of behavior, molecular neurobiology of neurotransmitters and neurohormones, and mathematical modeling of neuronal networks. Applicants should be trained in modern neuroanatomical methods, have at least 2 years of postdoctoral experience, and be prepared to establish an independent research program. Send curriculum vitae, three letters of recommendation, and a description of current and future research to: **Search Committee, Department of Behavioral Neuroscience, 479 Crawford Hall, University of Pittsburgh, PA 15260.**

POSITIONS OPEN

FACULTY POSITION IN EUKARYOTIC MOLECULAR GENETICS

The Department of Genetics, University of California, Davis, seeks to fill a tenure-track 11-month position in eukaryotic molecular genetics at the **ASSOCIATE OR ASSISTANT PROFESSOR** level to begin on or after 1 July 1990. Candidates must have demonstrated excellence in research, be willing to teach an advanced course in their specialty, and contribute to undergraduate instruction and advising. Interviews will be conducted after 1 January 1990 and continue until the position is filled. Apply to **James B. Boyd, Search Committee Chair, Agricultural Experiment Station, University of California, Davis, CA 95616.**

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

FACULTY POSITIONS IN MOLECULAR GENETICS

Emory University School of Medicine is establishing a Department of Human Genetics and is recruiting three outstanding individuals to help develop what is envisioned to be a leading center in molecular mammalian genetics. The department will occupy space in the new Rollins Research Center, a \$40-million biomedical research facility ready for occupancy in December 1989. A doctoral program in genetics is already in place and is nationally competitive in successfully recruiting outstanding students.

These positions may be filled at the **ASSISTANT TO ASSOCIATE PROFESSOR** level and are tenure-track appointments. Each position will include a competitive salary, start-up equipment, and guaranteed supply and technical/postdoctoral support for 3 years. Outstanding candidates with comprehensive training and research experience in molecular genetics, preferably in mammalian systems, are invited to apply. Send curriculum vitae, a brief research description, and request three letters of recommendation to: **Dr. Stephen T. Warren, Chair, Genetics Search Committee, Emory University School of Medicine, Atlanta, GA 30322.** Applications will be reviewed as received until 30 January 1990 or until all positions are filled. *Emory University is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are encouraged to apply.*

POSITIONS OPEN

Stevens Institute of Technology invites applications for tenure-track **FACULTY** in immunology (microbiology background preferred) and microbiology to initiate strong research program and teach in graduate and undergraduate chemical biology program. Ph.D. and evidence of research required. Send curriculum vitae, three letters of recommendation, and research plans to: **Biology Search, Chemistry Department, Stevens Institute of Technology, Castle Point on the Hudson, Hoboken, NJ 07030.** Stevens is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION DEPARTMENT OF PHARMACOLOGY

The Department of Pharmacology at Wayne State University School of Medicine has experienced an exciting growth phase with the addition of five new faculty within the past 2 years. As a continuation of that process, the department invites applications for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level. Highly qualified applicants would also be considered at the **ASSOCIATE PROFESSOR** level. Applicants should have a Ph.D. or M.D., significant postdoctoral experience, and excellent research accomplishment. We are seeking outstanding individuals with research interests in any area of modern pharmacology including biochemical/molecular pharmacology, neuropharmacology, carcinogenesis, cancer biology, and toxicology. Individuals applying molecular biological approaches to the study of pharmacological problems are strongly encouraged to apply. Faculty members are expected to establish vigorous independent research programs and to participate in teaching medical, graduate, and postdoctoral students. An attractive start-up package will be available. Send curriculum vitae, summary of current research activities and future research plans, and names of three professional references to: **Professor Paul F. Hollenberg, Chairman, Department of Pharmacology, Wayne State University School of Medicine, 540 East Canfield, Detroit, MI 48201.**

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

Air Force Office of Scientific Research

U.S. AIR FORCE LABORATORY GRADUATE FELLOWSHIP PROGRAM



Southeastern Center For Electrical Engineering Education

AFOSR OFFERS FELLOWSHIPS FOR GRADUATE STUDIES LEADING TO DOCTORAL DEGREES IN SELECTED SCIENCE AND ENGINEERING DISCIPLINES

APPLICATION DEADLINE: January 17, 1990

APPOINTMENTS BY: March 31, 1990

ELIGIBILITY: Applicants must be U.S. citizens with baccalaureate degree by September 1990. All qualified applicants will receive consideration without regard to age, color, race, religion, sex or national origin.

TERMS: Stipends of \$15,000, \$16,000, and \$17,000 will be paid for the first, second, and third years of the program respectively. AFOSR will provide full tuition and required fees and \$2,000 to the laboratory fellow's department. Maximum tenure is 36 months.

Laboratory Graduate Fellowships awarded under this program will be for study in the following disciplines:

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- * Biomedical Engineering
- * Chemistry and Chemical Engineering
- * Computer Science and Computer Modeling
- * Electrical Engineering
- * Geophysics and Meteorology
- * Industrial and Civil Engineering
- * Life Sciences, Biology and Biophysics
- * Materials Science, Ceramic Engineering, and Metallurgy
- * Mathematics
- * Mechanical Engineering
- * Physics

For information and applications contact:

SCEEE-Fellowship Program
1101 Massachusetts Avenue
St. Cloud, FL 34769
Phone: (407) 892-6146

POSITIONS OPEN

FACULTY POSITION IN BIOMEDICAL ENGINEERING AT NORTHWESTERN UNIVERSITY

The Biomedical Engineering Department of Northwestern University has a tenure-track position in systems physiology or biomechanics at the **ASSISTANT PROFESSOR** level for the 1990-91 academic year. Candidates should have earned a Ph.D. in either engineering, or in a related physical science or quantitative physiology. Interested applicants should submit by 1 January 1990: curriculum vitae, outline of future research, teaching interests, and names and addresses of at least three references to: **Dr. Andrew E. Kertesz, Chairman, Biomedical Engineering Department, Northwestern University, 2145 Sheridan Road, Evanston, IL 60208-3107.** Northwestern University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are especially encouraged to apply.

FACULTY POSITION IN PHYSIOLOGY

The Department of Physiology at Rush University seeks outstanding candidates for an entry-level **ASSISTANT PROFESSOR OR INSTRUCTOR** position. Individuals with strong research interests in molecular membrane physiology and biophysics, including both patch clamp and reconstitution studies of ion channels and muscle fiber dissection, are encouraged to apply. Successful applicants will be expected to conduct an active ongoing research program and participate in teaching medical and graduate students. Candidates should submit curriculum vitae, a brief statement summarizing present and future research interests and objectives, and have three letters of reference sent to: **Robert Eisenberg, Chairman, Department of Physiology, Rush University, 1750 West Harrison, Chicago, IL 60612.** The Rush University is an Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION AVAILABLE

VIROLOGIST. The Department of Microbiology and Program in Medical Sciences at Washington State University (WSU) invite applications for a tenure-track academic-year faculty position at the assistant/associate professor level. Preference will be given to individuals with research interests in the molecular basis of pathogenesis. Applicants must have postdoctoral training. The successful candidate will be expected to establish an active research program and participate in graduate, first-year medical student and undergraduate teaching. Send curriculum vitae, a statement of research interests and professional objectives, and three letters of reference to: **Dr. L. P. Mallavia, Search Committee Chairman, Department of Microbiology, WSU, Pullman, WA 99164-4340.** Application deadline, 1 December 1989 or until position is filled. An Equal Opportunity/Affirmative Action Educator and Employer. Protected group members are encouraged to apply.

JUNIOR FACULTY MEMBER to conduct advanced research in the molecular analyses of hemoglobinopathies. Applicant should have experience in isoelectric focusing, chromatography, protein isolation, purification by ion-exchange chromatography, and characterization. The position also involves teaching: conducting continued education courses to public health nurses and laboratory personnel through the state of Georgia to update their knowledge and technical expertise in sickle cell anemia and related hematological disorders. Ph.D. in biochemistry and 2 years of research experience in red blood cell abnormalities in hematological disorders required; \$27,000 per year. Qualified applicants should apply with résumé to: **Georgia Department of Labor, 601 Greene Street, Augusta, GA 30913,** or to the nearest Georgia Job Service Center. Control Number GA 5388791. Equal Opportunity/Affirmative Action Employer.

FISHERY RESEARCH. The Texas Parks and Wildlife Department seeks a research specialist to design, perform, and report applied quantitative research into broad aspects of fishery management, and to support technical programs. Qualifications include an M.S. degree in fishery science, biology, biostatistics, statistics, or related field. For more information contact: **Steve Gutreuter, Ph.D., Texas Parks and Wildlife Department, 4200 Smith School Road, Austin, TX 78744.** Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

FACULTY POSITION ANALYTICAL MICROSCOPIST/ MATERIALS SCIENTIST

Applicants are sought for a full-time tenure-track position at the **ASSISTANT PROFESSOR** level. A strong background in analytical electron microscopy and a Ph.D. in materials science or a related discipline is required. Candidates should be interested in teaching undergraduate and graduate courses and in developing a strong research program. Proposed starting date is negotiable.

Send résumé, publications, and the names of three references to:

**Professor L. D. Marks
Northwestern University
Department of Materials Science
and Engineering
Evanston, IL 60208**

Northwestern is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon eligibility to work in the United States.

UNIVERSITY OF WASHINGTON MOLECULAR BIOENGINEERING

The Center for Bioengineering at the University of Washington invites applications for three new tenure-track **FACULTY POSITIONS** in its Molecular Bioengineering Program. As part of an initiative funded by the Whitaker Foundation, the center is expanding its expertise in such areas as protein engineering, molecular assemblies, nanostructures, computational chemistry, and molecular modeling. This faculty addition will complement existing research and graduate training programs in biomaterials and biosensors. Applications, including a statement of goals, curriculum vitae, and the names of three or more references, should be forwarded by 15 January 1990 to: **Lee L. Huntsman, Director, Center for Bioengineering, WD-12, University of Washington, Seattle, WA 98195.**

Affirmative Action/Equal Opportunity Employer.
Women and Minorities are encouraged to apply.

GENETICIST CHILDREN'S HOSPITAL, BOSTON HOWARD HUGHES MEDICAL INSTITUTE HARVARD MEDICAL SCHOOL

The above institutions jointly seek a mammalian geneticist with a strong interest in the neuromuscular system, to join the Division of Genetics of the hospital and collaborate with other Hughes investigators whose interests include immunogenetics, muscle genetics, hematologic genetics, and structural biology. The applicant must be a nationally recognized investigator capable of directing a large and independent research program. Reply with curriculum vitae and statement of research interests to: **David G. Nathan, M.D., Physician-in-Chief, The Children's Hospital, 300 Longwood Avenue, Boston, MA 02115.**

The institutions are Affirmative Action/Equal Opportunity Employers.

HEAD DEPARTMENT OF ENTOMOLOGY

The Purdue University School of Agriculture invites applications for the position of Head, Department of Entomology. The department mission includes research, graduate (M.S., Ph.D.), and undergraduate (B.S.) education, and serving the public through extension. The head will have administrative and fiscal responsibilities for departmental programs; actively seek new sources of funding; and work with clientele groups. Candidates must have a Ph.D. in an area related to departmental programs, experience in grantsmanship, and commitment to scholarly achievement. They should possess leadership and administrative skills, and support the philosophy of the land grant university.

Applicants should submit curriculum vitae with a list of publications and names of five references to: **Robert L. Thompson, Dean of Agriculture, Attn: Entomology Head Search Committee, Agricultural Administration Building, Purdue University, West Lafayette, IN 47907.** Applications accepted until 5 January 1990, or until a suitable candidate is identified. Purdue University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

IMMUNOLOGIST CHILDREN'S HOSPITAL, BOSTON HOWARD HUGHES MEDICAL INSTITUTE HARVARD MEDICAL SCHOOL

The above institutions jointly seek an immunologist with an interest in cellular immunology and immunogenetics who will work collaboratively with a strong clinical program in immunology and with other investigators focusing on hematologic genetics, muscle genetics, and structural biology. The applicant must be a nationally recognized investigator capable of mounting a large and independent research program. Reply with curriculum vitae and statement of research interests to: **David G. Nathan, M.D., Physician-in-Chief, The Children's Hospital, 300 Longwood Avenue, Boston, MA 02115.**

The institutions are Affirmative Action/Equal Opportunity Employers.

A permanent, full-time position as **LIFE SCIENCES TEACHING LABORATORY SPECIALIST** is available in the Department of Physiology and Biophysics at the University of Illinois, Urbana-Champaign, beginning 15 January 1990. The department is committed to a major revision of its physiology teaching laboratories with emphasis on computer-based data acquisition and analysis. Duties of the successful candidate will include assisting faculty in the revision and organization of teaching laboratory experiments, maintaining and arranging laboratory equipment and supplies, supervision of graduate teaching assistants, and other functions related to providing students with a successful laboratory experience. Preferably, applicants should have an advanced degree in one of the life sciences and/or computer science, a solid background in physiology and biochemistry, and prior experience in electronics and computer-based data acquisition systems. Teaching experience is desirable. Preference will be given to individuals with documented computer programming skills. Salary will be commensurate with training and experience. In order to insure full consideration, a letter of application, curriculum vitae, and three letters of recommendation should be sent no later than 1 December 1989 to: **Dr. John E. Zehr, Head, Department of Physiology and Biophysics, 524 Burrill Hall, University of Illinois, 407 South Goodwin Avenue, Urbana, IL 61801. Telephone: 217-333-1734.** Interviews may be conducted before the closing date; however, all applications received by 1 December 1989 will receive full consideration. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.

MAMMALIAN MOLECULAR BIOLOGY

ASSISTANT/ASSOCIATE PROFESSOR. The Department of Veterinary Biosciences, College of Veterinary Medicine, University of Illinois at Urbana-Champaign, is seeking candidates for a tenure-track position. The successful candidate should have significant research experience using molecular biology techniques in mammalian cell systems. The department has existing strong programs in reproductive biology, neurobiology, cartilage/bone, and drug/toxin pathophysiology. Candidates with an interest in one of these areas are especially encouraged to apply. The incumbent will be expected to strengthen existing programs in the areas listed above. There are also significant opportunities to participate in interdisciplinary programs allied with the campus biotechnology center.

Candidates should possess the D.V.M. or equivalent and/or the Ph.D. degree with a strong background in mammalian molecular biology and recombinant DNA methodology. The incumbent will be expected to develop a strong extramurally funded research program and participate in graduate education programs in area of expertise. Applicants must be fluent in English. Salary will be commensurate with qualifications and experience. To ensure full consideration, applications must be received by 15 January 1990. Starting date will be 1 July 1990.

To apply, send curriculum vitae and names with addresses and phone numbers of four references to: **Dr. Aslam S. Hassan, Chair, c/o Linda Swett, Molecular Biology Search Committee, Department of Veterinary Biosciences, 2001 South Lincoln, Urbana, IL 61801, telephone: 217-333-2506.** The University of Illinois is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

**UNIVERSITY OF WARWICK, ENGLAND
DEPARTMENT OF BIOLOGICAL SCIENCES**

HIV RESEARCH

The award of a major grant from the AIDS Directorate of the MRC to the Virus Research Group within the Department has created six new positions to work on HIV. We are now seeking four Postdoctoral fellows (IA)/ Graduate Research Associates (IB) and a grade 3 Technician to complement the grade 5 Technician already in post. The grant is for three years, in the first instance, and the work will be carried out in a newly-constructed and equipped containment laboratory within the Department. General Research facilities with the Department are excellent. The research work will focus on three main areas:

1. Structure/function analysis of the *vif* gene (Dr. M. A. McCrae)
2. Studies on the mechanism of virus induced cell fusion (Professor C. R. Pringle)
3. Analysis of the mechanism of virus neutralization (Professor N. J. Dimmock)

Candidates with virological and/or molecular biological experience are particularly encouraged to apply.

Applicants seeking general information about this new research venture should telephone M. A. McCrae on (England) 0203 523524 (direct line) or, for specific information about any of the research areas, the appropriate project leader.

Appointments at the Postdoctoral level will be on the IA scale: £10,458-£16,665 pa; and Research Associate level will be on the IB scale: £9,816-£12,381 pa. The scale for the grade 3 Technician will be: £7,479 to £9,171 pa.

Applicants should apply to The Executive Officer (Noreen Rowe), Department of Biological Sciences, University of Warwick, Coventry CV4 7AL, England. Telephone (England) 0203 523517 (direct line). Please send a full cv, including the names and addresses of two referees, quoting Ref. MRC/MAM/76. Closing date, 8th December, 1989.

An equal opportunities employer.

**Very important
French Pharmaceutical
research center
seeks to employ a**

NEUROBIOLOGIST

The scientist is to head a laboratory for in vivo/ex vivo biochemistry (in vivo microdialysis, ex vivo levels of monoamines and metabolites in discrete brain regions). Candidates have had a training in biochemistry, have obtained their Ph. D, and are interested in biochemical C.N.S pharmacology. Please address your C.V., three relevant publications as well as a letter specifying your desiderata to Média-System, 6 impasse des Deux Cousins, 75017 Paris, France, under the reference 63514/S.

MEDIA-SYSTEM

**CLINICAL PHARMACOLOGIST -
PHYSIOLOGICAL
PHARMACOKINETICIST**

The Laboratory of Clinical Studies, National Institute on Alcohol Abuse and Alcoholism, Public Health Service, invites applications for one Clinical Pharmacologist - Physiological Pharmacokineticist. This position is offered depending on the experience of the applicants at the level of a senior staff fellow (salary range, \$28,000 - \$45,234). The Laboratory is involved in exciting studies on brain imaging and drug metabolism. The individual appointed will have an important role in this multidisciplinary team effort. A research ward, excellent analytical chemistry, brain imaging and computer resources are available in the Laboratory on the NIH campus. Position information and qualification requirements may be obtained by contacting Dr. Linnoila. Submit Curriculum Vitae and names of three references to:

**Markku Linnoila, M.D., Ph.D.
Clinical Director
National Institutes of Health
Building 10, Room 3B-19
9000 Rockville Pike
Bethesda, MD 20892
(301) 496-9705**

This position is now available.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

Research Manager

For an exceptional opportunity in medical diagnostics research, join Syva in Palo Alto, CA, located in the San Francisco Bay Area. We're a subsidiary of Syntex Corporation and a major medical diagnostics company that develops, manufactures, and markets a broad range of innovative tests that can diagnose infectious diseases or detect clinically significant substances. Located in one of the world's finest medical research centers, Syva is fully committed to its people and products.

The Research Manager will be responsible for spearheading new research programs for identification and development of new biochemical markers in human disease diagnostics. Requirements include an MD and/or Ph.D with concentration in biochemistry or immunology. Experience in molecular studies or cell biology with analytical research is required as is 8 years' post graduate experience.

The personal advantages of working in Palo Alto include enjoying our campus-like setting and the educational and cultural opportunities at nearby Stanford and other top institutions.

Syva offers an attractive benefits package which includes an incentive bonus program and excellent relocation assistance. For immediate consideration, send your resume to: Syva, Dept. DP/RM, P.O. Box 10058, Palo Alto, CA 94303. Principals only please. Syva is an equal opportunity employer.



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POSITIONS OPEN

LECTURER IN BIOLOGICAL SCIENCES. The Department of Biological Sciences, University of Nevada, Las Vegas (UNLV), seeks applicants for a non-tenure-track position as lecturer in biological sciences. Responsibilities will include teaching of introductory biology courses (lecture and laboratory components of both a nonmajors' human biology course and introductory courses for biology majors). The successful candidate becomes a professional staff member of the department. Experience in, and commitment to, undergraduate biology instruction is expected. Master's degree in a life science required. Salary is negotiable; position available August 1990. Send curriculum vitae and three letters of reference to: **Dr. R. Keith Dupre, Chair, Department of Biological Sciences, University of Nevada, Las Vegas, Las Vegas, NV 89154.** Applications must be received no later than 15 February 1990. *UNLV is an Equal Opportunity/Affirmative Action Employer and employs only U.S. citizens and aliens authorized to work in the United States.*

MEDICAL RESEARCH ASSOCIATE OR MEDICAL RESEARCH ASSISTANT PROFESSOR OF PATHOLOGY

Position available immediately. Professional with Ph.D., M.D., or D.V.M. degree and appropriate training in molecular biology to participate in large, productive brain tumor center working on the molecular biology of malignant brain tumors. Projects will include RFLP analyses and identification of suppressor genes. Desired experience should include isolation of DNA and RNA, filter hybridization, cloning and sequencing, polymerase chain reaction, and subtractive hybridization. Salary negotiable dependent on level of training and experience. Provide curriculum vitae and two letters of recommendation. Interviews at Duke will be arranged for qualified applicants. Contact: **Sandra H. Bigner, M.D., Professor of Pathology, Director, Section of Cytogenetics, Department of Pathology, P.O. Box 3712, Duke University Hospital, Durham, NC 27710.** FAX number: 919-684-8756.

MICROBIOLOGY

Applications are sought for tenure-track appointments at the **ASSISTANT PROFESSOR** level in the Department of Microbiology, School of Medicine, Texas Tech University Health Sciences Center. Applicants must hold a Ph.D. degree or equivalent and have postdoctoral experience and research interests in either immunology or microbial pathogenesis. The positions carry state-funded salaries and excellent fringe benefits. The appointees will participate in the teaching program for sophomore medical students, will train graduate students, and will be expected to maintain strong independent research programs. The setting provides the opportunity to work in new, well-equipped laboratories and collaborate with investigators with similar interests. Please send, before 1 March 1990, curriculum vitae, a statement of research accomplishments and goals, including representative publications, and the names and phone numbers of three references to: **Dr. David J. Hentges, Chairman, Department of Microbiology, Texas Tech University Health Sciences Center, Lubbock, TX 79430.** An Affirmative Action/Equal Opportunity Employer.

MOLECULAR MICROBIOLOGIST CELL BIOLOGIST

Applications are invited for a tenure-track position at the **ASSISTANT/ASSOCIATE PROFESSOR** level. We seek a candidate with an interest in developing a strong, independent research program. The successful applicant should have a Ph.D. or M.D. degree with substantial postdoctoral experience using contemporary molecular methods to study gene structure and regulation, signal transduction, or protein regulation in cell motility. The department faculty comprise a highly multidisciplinary group of active researchers interested in nervous system development, regeneration, cell signaling, and the molecular and structural basis of contraction and secretion. Applicants should submit curriculum vitae and a summary of research interests and arrange for three letters of recommendation to be sent to: **Dr. Pat Levitt, Faculty Search Committee, Department of Anatomy, Medical College of Pennsylvania (MCP), 3200 Henry Avenue, Philadelphia, PA 19129.** Application deadline is 15 March 1990. *MCP is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

MICROBIOLOGIST/ PROKARYOTIC MOLECULAR BIOLOGIST

ASSISTANT PROFESSOR tenure-track appointment beginning 20 August 1990 in a new and expanding Department of Microbiology. Ph.D. degree and postdoctoral experience required. The successful applicant will be capable of conducting an independent research program in molecular biology of responses to environmental or nutritional stress/stimuli, directing graduate student research, and developing an undergraduate course in bacterial physiology. Respond to: **Dr. Carl A. Schnaitman, Chair, Department of Microbiology, Arizona State University, Tempe, AZ 85287-2701,** including curriculum vitae, the names and addresses of three references, a statement of research interest, and reprints. Open until 1 February 1990 or the 1st of each succeeding month until filled. *Arizona State University is an Affirmative Action/Equal Opportunity Employer.*

MICROBIOLOGISTS. The Department of Biological Sciences at Mississippi State University is seeking applications for three 9-month, tenure-track positions at the **ASSISTANT OR ASSOCIATE PROFESSOR** level starting August 1990. Individuals hired for the positions will be expected to teach undergraduate and graduate courses and to develop an externally funded research and graduate training program. Qualified candidates with expertise and experience in microbial genetics, pathogenic bacteriology, and environmental microbiology are encouraged to apply. Applications should include a letter of application stating teaching and research interests, special qualities, and qualifications for the position; detailed curriculum vitae; official transcripts of graduate work; and three professional references. Address correspondence to: **Dr. Wyman Dorough, Head, Department of Biological Sciences, Mississippi State University, P.O. Box 5307, Mississippi State, MS 39762.** Application deadline: 1 February 1990 or until filled. *Affirmative Action/Equal Opportunity Employer.*

MOLECULAR BIOLOGIST/ PATHOLOGIST/GENETICIST

The Department of Pathology at the University of California, Irvine (UCI), under the direction of Dr. Yutaka Kikkawa, is seeking a molecular biologist/pathologist/geneticist to supervise the molecular pathology laboratory at University of California, Irvine, Medical Center. The incumbent will have a faculty appointment at the assistant level in the research series in the Department of Pathology and will be expected to have or develop his or her own independent research program in a related field. Required qualifications are a Ph.D. in genetics or in molecular biology; and one or more years of postdoctoral experience. Interested parties should send curriculum vitae and names of five references to: **Yutaka Kikkawa, M.D., Professor and Chair, Department of Pathology, UCI-CCM, Med Sci I, D440, Irvine, CA 92717.** The University of California, Irvine, is an Affirmative Action/Equal Opportunity Employer and specifically invites and encourages applications from women and minorities.

MOLECULAR GENETICISTS DEPARTMENT OF GENETICS UNIVERSITY OF GEORGIA

The Department of Genetics at the University of Georgia is seeking molecular geneticists for tenure-track positions available July 1990. The research areas and the academic rank are open. Individuals interested in the following areas are especially encouraged to apply: developmental genetics; nucleic acid/protein interactions; and prokaryotic molecular genetics. The successful candidates will be expected to pursue active research programs and to teach at the graduate and undergraduate level. The Department of Genetics has 15 faculty members with strong research programs in molecular and population genetics. The department will soon occupy a new state-of-the-art research facility. Applicants should arrange to have three letters of recommendation sent on their behalf. The letters, curriculum vitae, reprints of representative publications, and a statement of research interests should be mailed to: **Dr. Sidney R. Kushner, Head, Department of Genetics, University of Georgia, Athens, GA 30602.** The closing date for applications is 2 January 1990. *The University of Georgia is an Equal Opportunity/Affirmative Action Institution.*

POSITIONS OPEN

MOLECULAR BIOLOGIST

Staff position in Duke Hospital Laboratories available immediately to direct the operations and assist in the development of an established molecular diagnostics laboratory. A background in recombinant DNA and human genetics is required. The laboratory is well staffed and offers the opportunity for interaction with many basic/clinical scientists in a superb research university.

Please send curriculum vitae along with references to: **Dr. Russel Kaufman, Division of Hematology/Oncology, Box 3250, Duke University Medical Center, Durham, NC 27710.**

Duke University is an Equal Opportunity/Affirmative Action Employer.

MOLECULAR MODELING/SEQUENCING

Program in structural biology needs computer expert to operate computational/molecular graphics and sequence analysis facility: VAX 3520 and E&S 390 graphics station. Experience with biomolecular modeling and sequence analysis important. Responsibilities include assisting in research on protein and nucleic acid structure and in operation of sequence analysis packages, e.g., GCG Wisconsin. Salary competitive and commensurate with experience. Position available now. Send résumé and three letters of reference to: **Lawrence G. Abele, Department of Biological Science, Florida State University, Tallahassee, FL 32306,** before 10 January 1990. *Florida State University is an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR PARASITOLOGY

The Case Western Reserve University School of Medicine (CWRU) is seeking applications for a faculty position in the Department of Molecular Biology and Microbiology. Individuals using modern molecular biological methods to study gene expression in a parasitic organisms are encouraged to apply. While the prospective rank of this appointment is open, preference will be given to individuals with an established, independent research program. CWRU offers a large and interactive research community in molecular biology which includes several investigators whose major research interest is in the molecular aspects of parasite gene regulation.

Curriculum vitae should be submitted by 1 February 1990 to:

Dr. T. W. Nilsen
Search Committee for Molecular Parasitology
Department of Molecular Biology and Microbiology
Case Western Reserve University
School of Medicine
Cleveland, OH 44106

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

MYCOBACTERIOLOGIST/ MOLECULAR BIOLOGIST

The Respiratory Diseases Branch, Division of Bacterial Diseases, Center for Infectious Diseases, Centers for Disease Control, invites applications for the position of **CHIEF, MYCOBACTERIOLOGY LABORATORY.** A Ph.D., M.D., or equivalent degree with background of research and training in mycobacteriology is preferred. Problems in applied research will include development of rapid methods for identification of *Mycobacterium* species, studies of taxonomic characters, evaluation of plasmid control of bacterial metabolism, development of DNA rationale for control of biochemical activities, and investigation of the genome structure of selected species. Administrative experience is desirable, but a demonstrated record of research accomplishment is essential. Since this is the reference mycobacteriology laboratory for all state public health laboratories, the successful applicant will be responsible for collaborative studies, service activities, and the support of clinical mycobacteriology laboratories.

This is a career civil service position with a starting salary of \$50,342 to \$76,982 per year dependent upon qualifications. Applicants must submit Standard Form 171 (Application for Federal Employment which is available from any federal personnel office), curriculum vitae, and the names of three references to: **Ms. Sharlyn Wilkinson, Personnel Management Office (D01), Centers for Disease Control, Atlanta, GA 30333.** The Centers for Disease Control is an Equal Opportunity Employer and provides for a smoke-free work environment.

POSITIONS OPEN

OCEANOGRAPHER. We intend to hire a tenure-track assistant professor to begin in fall 1990. We desire a candidate in the general area of biology or chemistry whose training and research will strengthen the links between the chemical and biological oceanographers on our faculty. Applicants should send a letter with their research interests, names and addresses of three referees, and a curriculum vitae by 31 December 1989 to: **Dr. William C. Burnett, Chairman of the Search Committee, Department of Oceanography, Florida State University, Tallahassee, FL 32306.** FSU is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

PHYSIOLOGICAL PLANT ECOLOGIST

The Department of Botany of the University of Florida invites applications for a tenure-track **ASSISTANT PROFESSORSHIP**. The appointee will be expected to establish a vigorous research program and to teach introductory biology plus an advanced course. Submit curriculum vitae and description of research interests, and have letters from four referees sent to: **Dr. John J. Ewel, Search Committee Chair, Department of Botany, University of Florida, Gainesville, FL 32611-2009** by 15 December 1989.

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

POPULATION OR COMMUNITY ECOLOGY.

Tenure-track **ASSISTANT PROFESSOR** position to teach introductory biology and upper-division specialty courses. Background should include research in population or community ecology with computer analysis. Southern Oregon State College is dedicated to quality teaching and encourages independent research. Ph.D. required. Send curriculum vitae and three letters of reference to: **Dr. Stephen Cross, Department of Biology, Southern Oregon State College, Ashland, OR 97520** by 1 February 1990. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

PHYSIOLOGIST. Furman University is seeking an animal physiologist to fill a tenure-track position at the **ASSISTANT PROFESSOR** level, beginning in September 1990. Applicants with interest in neurobiology are particularly encouraged, but all qualified physiologists will be seriously considered. Teaching responsibilities will include upper-level undergraduate courses in areas of one's expertise and participation in introductory biology courses. Candidates must have the Ph.D. degree, a strong interest and ability in teaching undergraduates, and a commitment to involving them in an active research program. Furman is a very selective liberal arts school of 2500 students. Submit curriculum vitae, original or photostatic transcripts, a statement describing areas of teaching competency and research interests, and three letters of recommendation to: **Dr. Gilbert Fairbanks, Search Committee, Department of Biology, Furman University, Greenville, SC 29613.** Application deadline is 7 January 1990. *An Equal Opportunity/Affirmative Action Employer.*

PLANT BIOLOGIST. The Department of Biological Sciences, University of Nevada, Las Vegas (UNLV), invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** rank. We seek candidates who conduct research on vascular plants with an emphasis on functional anatomy/morphology and/or stress physiology. The successful candidate will be expected to conduct a vigorous research program and to demonstrate a strong commitment to both undergraduate and graduate (M.S. and Ph.D.) education. Ph.D. in a biological science required; postdoctoral training is preferred. Send letter of application, curriculum vitae, brief description of research and teaching interests, reprints of representative publications, and the names and addresses of three professional references by 5 January 1990 to: **Dr. Stanley D. Smith, Chair, Plant Biologist Search Committee, Department of Biological Sciences, University of Nevada, Las Vegas, Las Vegas, NV 89154.** UNLV is an Equal Opportunity/Affirmative Action Employer and employs only U.S. citizens and aliens authorized to work in the United States.

POSITIONS OPEN

PLANT MOLECULAR/ CELLULAR BIOLOGIST

The Department of Biology and the Institute of Molecular Biology of the University of Oregon intend to fill a tenure-track, **ASSISTANT PROFESSOR** position for fall 1990 in cellular/molecular biology. Preference will be given to candidates using molecular/genetic approaches to understand basic cellular mechanisms in plants, as part of our expansion in the area of plant biology. Applications including curriculum vitae with a summary of research goals and three letters of reference should be sent to: **Dr. Ry Meeks-Wagner, Department of Biology, University of Oregon, Eugene, OR 97403.** The closing date is 15 December 1989. *The University of Oregon is an Equal Opportunity/Affirmative Action Employer.*

PLANT MOLECULAR BIOLOGIST COLORADO STATE UNIVERSITY

The Department of Biology at Colorado State University invites applications for a tenure-track position in the area of gene structure, expression, and regulation.

Qualifications: A Ph.D. in plant science, biochemistry, genetics, or a related area, postdoctoral experience preferred; demonstrated expertise in plant molecular biology; a strong background in plant biology; evidence of potential for independent and innovative research; and a willingness to cooperate with the broad spectrum of biologists present on campus.

To apply please send a letter stating your research and teaching interests; curriculum vitae; transcripts; names, addresses and phone numbers of three references; and three publications before 15 January 1990 to: **B. Reeves, Plant Molecular Biology Search Committee, Department of Biology, Colorado State University, Fort Collins, CO 80523.**

Ethnic minorities and women are encouraged to apply. Colorado State University is an Affirmative Action/Equal Opportunity Employer. E.O. Office: 314 Student Services Building.

Scientific Officer, Meso/Large Scale Physical Oceanography

The Office of Naval Research (ONR) is seeking a highly qualified individual to plan and manage a significant portion of its sponsored research program in Meso/Large Scale Physical Oceanography. The research is conducted principally at universities, with lesser amounts at private and government laboratories, and is performed by leading scientists in the field. This is a Civil Service position at the GM-13 or GM-14 level (\$41,121 - \$63,172), depending upon qualifications.

The individual selected will plan, develop and direct research in areas delegated by the Manager of the Meso and Large Scale Physical Oceanography Program. Anticipated areas include but are not limited to data assimilation, ocean dynamics and other aspects of numerical ocean modeling. The incumbent will select research proposals for funding, identify new research opportunities, interact with the scientific community, evaluate and represent delegated elements of the Meso/Large Scale Physical Oceanography Program within the Navy and DoD. This position provides a challenge and opportunity to have a significant impact on the direction and quality of research at the national level. Additionally, the opportunity exists to establish or maintain an individual research program at an academic or government laboratory.

Applicants must have at least one year of professional experience although a PhD or equivalent in Physical Oceanography or a related discipline and one year of professional experience is preferred. To be qualifying, this experience must have been at a level of difficulty and responsibility equivalent to that of the next lower grade level in the Federal Service. Demonstrated ability to interact with senior scientific and managerial officials and a strong record of scientific research experience is preferred.

Interested persons should send a resume, list of publications, and a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers or from the address below), to:

**OFFICE OF THE CHIEF OF NAVAL RESEARCH
Civilian Personnel Division, OCNR Code 01242P
Attn: Announcement #89-66(S)
800 North Quincy Street
Arlington, VA 22217-5000**

Applications will be accepted through 23 January 1990 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplemental forms, please call (202) 696-4705.

U.S. Citizenship Required

An Equal Opportunity Employer

POSITIONS OPEN

PROFESSOR AND HEAD OF THE DEPARTMENT HARVARD MEDICAL SCHOOL DEPARTMENT OF PATHOLOGY

Harvard Medical School is seeking an outstanding medical scientist to serve as the George Fabyan Professor and head of the Department of Pathology. The department head of pathology is responsible for providing strong leadership in basic research, for coordinating activities and appointments in the excellent hospital-based departments, and for organizing and directing a large teaching program for residents, medical students, and graduate fellows. He/she is also responsible to the dean for the development of the department's short- and long-range academic plans. Because of its central importance to contemporary research in pathology and the strong program developed in the department over the past two decades, the successful candidate must be an outstanding scholar who is widely recognized as preeminent in the fields of cellular, molecular, and/or experimental pathology. Areas for research could include immunology or experimental oncology, as well as molecular mechanisms of disease. The school is particularly interested in considering new directions for the future of pathology.

Applicants should submit curriculum vitae, a statement of research interests, and the names and addresses of three references to: **Dr. Bernard Fields, Chairperson, Search Committee, Harvard Medical School, Building D1, Room 425, 200 Longwood Avenue, Boston, MA 02115**, immediately. *Harvard Medical School is an Affirmative Action/Equal Opportunity Employer. Qualified women and minority candidates are encouraged to apply.*

PLANT PHYSIOLOGIST/BIOCHEMIST

U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Potato Research Laboratory, East Grand Forks, Minnesota, has a permanent full-time position available immediately at East Grand Forks for a key participant in research identifying and regulating cellular events critical in the nature control of potato sprouting and seed vigor. Candidates must have knowledge of relevant plant physiology and biochemistry, and skill in analytical biochemistry including radioactive labels/tracers, spectroscopy, and other related techniques. Ph.D. is desirable. *Must be U.S. citizen.* Salary: \$34,580 to \$63,172. For information on the research program contact: **Paul Orr, telephone: 218-773-2473**. For application procedures and forms contact: **Janie Carr, telephone: 301-344-4569**. Applications in response to this advertisement should be marked 400-9-0111 and must be postmarked by 2 January 1990. Mailing address: **Janie Carr, USDA/ARS/PD, Building 419, BARC-East, Beltsville, MD 20705**. *An Equal Opportunity Employer.*

POPULATION GENETICS. The Department of Systematics and Ecology at The University of Kansas invites applications for a tenure-track position in population genetics at the **ASSISTANT PROFESSOR** level. Applicants must have a strong theoretical background in population genetics and a broad research interest in the development of theory and the application of theory to studies of natural populations. Preference will be given to individuals with postdoctoral experience and outside funding. Successful applicants will be expected to develop a vigorous research program, to teach graduate and undergraduate courses in population genetics and interdepartmental genetics program. The salary range is \$32,000 to \$34,000. Please send curriculum vitae, copies of selected publications, at least three letters of reference, a statement of experience and interests by 17 January 1990, to: **Dr. Robert D. Holt, Chair, Population Genetics Search Committee, Department of Systematics and Ecology, Haworth Hall, University of Kansas, Lawrence, KS 66045-2106**. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION immediately available for **RESEARCH ASSOCIATE SCIENTIST** with recent Ph.D. Will work in laboratory studying gene expression and cell differentiation in T cells and human thymocytes. Knowledge of tissue culture, molecular biology, or cellular biology desirable. Willing to train. Please submit curriculum vitae and names of three references to: **Joan Harmon, Personnel Department, New York University Medical Center, 550 First Avenue, New York, NY 10016**. *An Equal Opportunity Employer M/F.*

POSITIONS OPEN

SENIOR BIOCHEMIST. Full-time staff position available to investigate the role of mononuclear leukocytes in blood coagulation and lipid metabolism. Ph.D. or M.D. required, with up to 3 years of postdoctoral training. Experience in immunology helpful. We are offering competitive salaries and a benefit package. For immediate consideration, mail your résumé to: **Human Resources Department, Miami Heart Institute, 4701 North Meridian Avenue, Miami Beach, FL 33141**. *An Equal Opportunity Employer.*

PHARMACOLOGIST. Ph.D., academic teaching appointment, Southeastern University of the Health Sciences. Salary: \$30,000 plus. Call: **Dr. Baeder, Pharmacology Chairman, 1750 N.E. 168th Street, North Miami Beach, FL 33162**. Telephone: 305-949-4000, ext. 418.

PHARMACOLOGY/TOXICOLOGY ASSISTANT

Ph.D. in a life science, preferably pharmacology/toxicology; strong research background; demonstrated ability and the commitment to write 2 to 3 manuscripts per year. For more information, call or send résumé along with curriculum vitae to:

**Florida Agricultural and Mechanical University
College of Pharmacy
Tallahassee, FL 32307
Telephone: 904-599-3301**

POSTDOCTORAL POSITIONS for Ph.D.'s in an interdisciplinary program at Brown University applying cell biology, physiology, biochemistry, toxicology, and molecular biology to problems of lung disease. Funding under National Institutes of Health Institutional NRSA. *Candidates from minority groups are especially welcome.* For more information, please contact: **Dr. Frederic G. Hoppen, Jr., Director of Pulmonary Medicine, Brown University, Box G, Providence, RI 02912**. Telephone: 401-722-6000, ext. 2636.

POSTDOCTORAL POSITION available in plant biochemistry. Research directed toward elucidation of molecular mechanisms involved in protein turnover. Background in enzyme purification, radiolabeling of plant proteins, and plant biochemistry desirable. Salary commensurate with experience (GS-11, \$28,850 per year). Send curriculum vitae and letters from three references to: **Dr. Autar K. Mattoo, Research Leader, Plant Molecular Biology Laboratory, USDA, ARS, Room 117, Building 006, BARC-West, Beltsville, MD 20705**. Application should be marked 9E017. *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available in laboratory active in human tumors, cytotoxic cells, molecular regulation of cytokines. Send curriculum vitae and names of references to: **Dr. Sidney Golub, University of California, Los Angeles (UCLA), School of Medicine, 54-140, CHS, Los Angeles, CA 90024-1782**. *UCLA is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATES

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), has available three postdoctoral research associate positions at the Regional Poultry Research Laboratory, East Lansing, Michigan, in areas of: (i) Molecular biology; incumbent will participate in an ongoing research project to construct expression vectors for use as live poultry vaccines. Research will be focused on inserting foreign genes into the Marek's disease virus genome and evaluating the ability of various viral promoters to regulate gene expression. (ii) Cellular biology; the incumbent will participate in an ongoing research project to elucidate the mechanism of enhancement of avian leukosis by Marek's disease vaccine virus. (iii) Molecular biology; incumbent will participate in an ongoing research project to identify Marek's disease viral genes important for vaccinal immunity. Salary commensurate with experience (\$28,852 to \$34,580). Please send curriculum vitae and names of three references to: **Dr. R. F. Silva** for position (i); to **Dr. A. M. Fadly** for position (ii); and to **Dr. L. F. Lee** for position (iii); **USDA-ARS-Regional Poultry Research Laboratory, 3606 East Mount Hope Road, East Lansing, MI 48823**, or call: 517-337-6828.

ARS is an Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN VASCULAR BIOLOGY. Two positions immediately available to study the basic molecular and cell biology of proteases and adhesion receptors. A strong background in either protein chemistry or cell biology is essential. Send résumé and names of three references to: **Dr. Edward F. Plow, Committee on Vascular Biology, Research Institute of Scripps Clinic, 10666 North Torrey Pines Road, La Jolla, CA 92037**.

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY/BIOCHEMISTRY JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

A position is now open to study the molecular biology and biochemistry of the mitochondrial ATP synthase/ATPase complex. Individuals in the process of completing their Ph.D. thesis work in either molecular biology or biochemistry are encouraged to apply. Interested individuals should send curriculum vitae and the names of three references to:

**Dr. Peter L. Pedersen
Department of Biological Chemistry
Johns Hopkins University School of Medicine
725 North Wolfe Street
Baltimore, MD 21205**

POSTDOCTORAL POSITION UNIVERSITY OF CALIFORNIA SANTA BARBARA

Postdoctoral position in biophysics or biochemistry. Position involves electron, scanning, tunneling, and atomic force microscopy of biomembranes, Langmuir-Blodgett films, and lipid/protein bilayers, including natural and artificial lung surfactants. Applicants must have a Ph.D. degree and experience in STM, AFM imaging, or membrane biophysics or biochemistry. Please send curriculum vitae and three letters of reference to: **Dr. J. Zasadzinski, Department of Chemical and Nuclear Engineering, University of California, Santa Barbara, CA 93106**. Position open until filled.

The University of California is an Equal Opportunity Affirmative Action Employer. Proof of U.S. citizenship or eligibility for U.S. employment will be required prior to employment (Immigration Reform and Control Act of 1986).

POSTDOCTORAL POSITION

Two postdoctoral positions available immediately to study molecular mechanisms of recognition of surface molecules of *Trypanosoma cruzi* by their host cells. Projects include protein purification, T cell cloning, gene cloning, and expression of immunoprotective parasite epitopes for B and T cells. Preference to Ph.D. experienced in gene cloning. Send curriculum vitae and names and telephone numbers of three references to: **Dr. F. Villalta, Division of Biomedical Sciences, Meharry Medical College, 1005 D. B. Todd, Jr. Boulevard, Nashville, TN 37208**. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATE.

Positions are available working with a multidisciplinary research team on aspects of cartilage, bone, and skin repair and regeneration. Research projects include the use of osteo-chondral progenitor cells isolated from adults, mitotic expansion of these cells in culture, and their reintroduction into orthotopic repair/regeneration sites in vivo. In addition, the role of the extracellular matrix in these events is also being experimentally explored. Experience with quantitative and qualitative morphometrics and histology, immunocytochemistry, cell and organ culture, monoclonal antibodies to cells or purified molecules, molecular biology probes and related assays, delivery vehicles for cells and molecules, or growth factor dynamics would be useful. In expressing interest in these positions, please include full curriculum vitae, request that three letters of reference be forwarded on your behalf, and include text on your previous experience and future goals. Submit information to: **Arnold I. Caplan, Ph.D., Director of the Skeletal Research Center, Department of Biology, Case Western Reserve University, 2080 Adelbert Road, Cleveland, OH 44106**. *We are an Equal Opportunity Employer and welcome all applications.*

UNIVERSITY OF OXFORD



**DAVID PHILLIPS
PROFESSORSHIP
OF
MOLECULAR
BIOPHYSICS**

The electors intend to proceed to an election to the David Phillips Professorship of Molecular Biophysics with effect from as early a date as can be arranged. The stipend of the professorship is at present £28,521.

Applications (ten copies, or one from overseas candidates), naming three referees should be received not later than 27 November 1989 by the Registrar, University Offices, Wellington Square, Oxford, OX1 2JD, from whom further particulars may be obtained.

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Senior Research Biochemist

The Wellcome Research Laboratories has an opportunity available in the Division of Cell Biology for a scientist to be part of a team working in the area of either opiate receptor biochemistry and pharmacology or ras oncogene function.

Candidates must have a Ph.D. in pharmacology, biochemistry or molecular biology with two years postdoctoral training. Must have demonstrated the ability to carry out independent research. Other factors to be considered in selection include: experience in areas relating to membrane signal transduction, molecular biology receptors, or cellular oncology; interest in drug development.

Burroughs Wellcome Co. offers top benefit programs along with very competitive salaries. If you are interested in working for us, submit your resume, indicating position number in your cover letter, by **January 2, 1990** to: **Burroughs Wellcome Co., Scientific Recruiting and Staffing, Pos.#61285-4, 3030 Cornwallis Road, Research Triangle Park, NC 27709.**

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**CHAIR
DEPARTMENT OF
CHEMISTRY**

The Ohio State University invites nominations and applications for the position of Chair of the Department of Chemistry. The applicant must demonstrate suitable administrative and academic leadership skills for this position, which will be open in July 1990. The Ohio State University is a major comprehensive University. The Department of Chemistry, with 41 faculty, has 240 graduate and 35 postdoctoral students, and has extensive research programs in most areas of chemical research. Applicants, who must have established strong research credentials in some branch of Chemistry, should write to **Dr. Leo Paquette, Chairman, Search Committee, Department of Chemistry, The Ohio State University, Columbus, Ohio 43210-1173, (614-292-2520)** giving the names of three or more referees. Applications/nominations received by December 31, 1989 will receive full consideration. The Ohio State University is an affirmative action/equal opportunity employer.

**HHMI-NIH RESEARCH
SCHOLARS AT THE NATIONAL
INSTITUTES OF HEALTH**

The Howard Hughes Medical Institute (HHMI) and the National Institutes of Health (NIH) announce that applications are being accepted for the 1990-91 class of Research Scholars.

Under this joint program, students who are United States citizens or permanent residents attending medical schools in the United States or Puerto Rico are selected to spend a year of intensive laboratory research at the NIH in Bethesda, Maryland. The program year will begin in the summer of 1990.

Scholars are paid as HHMI employees and are housed at The Cloister, a residence on the NIH campus.

Deadline for applications is **January 16, 1990.**

Students will be notified of results by **April 1, 1990.**

Brochures and application kits are available in the deans' offices of medical schools; they may also be obtained by writing or calling:

Howard Hughes Medical Institute

One Cloister Court

Bethesda, MD 20814-1460

Telephone: (301) 951-6710 or (800) 334-6301

The Howard Hughes Medical Institute, an Equal Opportunity Employer, welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.

POSITIONS OPEN

POSTDOCTORAL POSITION—MARINE INVERTEBRATE MOLECULAR EVOLUTION

The Smithsonian Tropical Research Institute in the Republic of Panama has a 2-year position available immediately for candidate with extensive experience in protein gel electrophoresis to carry out study of population genetics and systematics of bryozoans from the tropical Americas. Ph.D. in evolutionary biology, genetics, or systematics required. Experience with mtDNA analysis and SCUBA diving desirable. Salary \$23,000. Curriculum vitae and three confidential letters of recommendation should be received by 30 November 1989. Send to: **Dr. Jeremy B. C. Jackson, Smithsonian Tropical Research Institute, APO Miami, FL 34002-0011.** *Equal Opportunity Employer; employment not limited by nationality.*

POSTDOCTORAL POSITION

A 3-year postdoctoral position is available to conduct basic and applied studies of antigens associated with spontaneous cancer in dogs. A Ph.D. in immunology is required. Strong background in biochemistry and experience in tumor immunology and monoclonal antibody technology are desirable. Minimum starting salary of \$24,000 plus fringe benefits. Send curriculum vitae and names of three references to: **Dr. Lauren G. Wolfe, Department of Pathobiology, 166 Greene Hall, Auburn University, AL 36849-5519.**

Auburn University is an Equal Employment Opportunity Employer. Minorities and women are encouraged to apply.

TWO POSTDOCTORAL POSITIONS in protein crystallography available July 1990: (i) X-ray structure determination and simulation of flavoproteins of clinical interest; (ii) study of dynamics in protein crystals using MD simulations and x-ray refinement by simulated annealing. Experience in crystallography preferred, but candidates with background in biochemistry or computational chemistry with a desire for training in crystallography will also be considered. Send résumé to: **Dr. John Kuriyan, Laboratory of Molecular Biophysics, The Rockefeller University, 1230 York Avenue, New York, NY 10021.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION RESEARCH SCIENTIST PN119

Nonprofit public health organization has a postdoctoral position available for a toxicologist, metabolism chemist, or pharmacologist interested in the applications of state-of-the-art HPLC mass spectrometry in studying xenobiotic metabolism in mammals. Knowledge and experience in *in vivo* or *in vitro* metabolism techniques and handling of experimental animals preferred. Previous experience with liquid chromatography and mass spectrometry are desirable. Candidates should possess a Ph.D. in toxicology, biochemistry, or a related discipline and be available for a minimum of 2 years. Salary is \$2375 per month, comprehensive benefits package included. Starting dates are between March and July 1990. Send résumé and names of three references by 20 December 1989 to: **California Public Health Foundation, 2001 Addison Street, Suite 210, Department 119, Berkeley, CA 94704-1103.** *We are proud to be an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL MOLECULAR BIOLOGIST

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Potato Research Laboratory, East Grand Forks, Minnesota, has a 2-year postdoctoral position available immediately to modify genetic expressions affecting market quality of potatoes. The incumbent will be responsible for establishing appropriate cDNA libraries and isolating and sequencing key genes that regulate responses to stress and carbohydrate partitioning in potato cells. Candidates must have knowledge of biochemistry. Ph.D. is required. Salary: \$28,852 to \$34,580. For information on the research program, contact: **Paul Orr, telephone: 218-773-2473.** For application procedures and forms contact: **Janie Carr, telephone: 301-344-4569.** Applications in response to this advertisement should be marked RA-9-039 and postmarked by 2 January 1990. Mailing address: **USDA, ARS, Potato Research Laboratory, P.O. Box 113, East Grand Forks, MN 56721.** *An Equal Opportunity Employer.*

POSITIONS OPEN

RECEPTOR MOLECULAR BIOLOGY. POSTDOCTORAL POSITION available on dopamine-related receptors; \$25,000+ depending on experience. Send résumé and two letters of reference to: **Drs. P. Seeman and H. B. Niznik, Department of Pharmacology, Medical Sciences Building, University of Toronto, Toronto, Ontario, Canada M5S 1A8.**

POSTDOCTORAL POSITION. Molecular Biology of Oncogenes. NIH/NRC position available for Ph.D. with training in molecular biology to study the structure/function characteristics of a nuclear oncogene [see *PNAS* 86, 1186 (1989)]. Position renewable for 1 year with starting salary of \$28,000. Must be U.S. citizen. Send curriculum vitae and names of three references to: **Dr. Herbert C. Morse III, Laboratory of Immunopathology, Building 7, Room 302, National Institutes of Health, Bethesda, MD 20892.** *The NIH is an Equal Opportunity Employer.*



Agricultural Research Service
United States Department of Agriculture

POSTDOCTORAL RESEARCH ASSOCIATE U.S. REGIONAL PASTURE RESEARCH LABORATORY UNIVERSITY PARK, PA

The USDA Agricultural Research Service (ARS) has an immediate opening for a postdoctoral research associate position (2-year appointment). The incumbent will participate in a multidisciplinary research team effort directed toward isolating and characterizing genes that control reproduction in buffelgrass. Ph.D. within the last 3 years and U.S. citizenship required. Salary is commensurate with experience; GS-11/12 (\$28,852 to \$34,580 per year). For information and application forms, contact: **Dr. David L. Gustine, USDA-ARS, U.S. Regional Pasture Research Laboratory, Curtin Road, University Park, PA 16802; telephone: 814-863-0949.** Applications in response to this advertisement should be marked RA-89-29 and will be accepted until position is filled.

ARS is an Equal Opportunity Employer. All persons are encouraged to apply.

POSTDOCTORAL RESEARCH ASSOCIATE. Position available immediately for M.D., D.V.M., and/or Ph.D. interested in studying the role of intracellular enzyme(s) as important second messengers in lymphocyte proliferation. Applicants should have knowledge of cellular and molecular immunology and be competent to use HPLC. Send a letter of application along with curriculum vitae and names and addresses of three references to: **Dr. Rao Atluri, Department of Anatomy and Physiology, College of Veterinary Medicine, VMS #228, Kansas State University, Manhattan, KS 66506.**

POSTDOCTORAL POSITIONS available to join a National Institutes of Health-funded laboratory working on molecular aspects of Herpes simplex virus latency and pathogenesis. Investigations focus on the regulation and modes of action of genes involved in HSV-1 latency and reactivation. Starting dates: one immediate, one flexible. Candidates should have a Ph.D. in an area of biological science; emphasis in molecular biology and/or virology preferred, but not essential. Highly competitive salary commensurate with experience and productivity. Minimum appointment for 2 years. Submit curriculum vitae and names, addresses and telephone numbers of three individuals to be contacted as references to: **Steven L. Wechsler, Ph.D., Virology Research Laboratory, Cedars-Sinai Medical Center/UCLA School of Medicine, Halper Building, Room 111, 8700 Beverly Boulevard, Los Angeles, CA 90048.**

POSTDOCTORAL POSITION is immediately available in the area of plant molecular biology. Research is focused on the import and processing of nuclear encoded proteins and the analysis of mutants in transgenic plants. Funding is for 3 years. Please send curriculum vitae and two references to: **Dr. Gayle Lippa, Department of Molecular Genetics and Cell Biology, The University of Chicago, 920 East 58th Street, Chicago, IL 60637.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION IN MOLECULAR NEUROBIOLOGY

To study the GABA/benzodiazepine receptor with monoclonal antibodies, recombinant DNA, and patch clamp techniques. A background in molecular biology and/or biochemistry is desirable. Please send curriculum vitae and three references to:

Dr. Angel L. de Blas
Division of Molecular Biology & Biochemistry
109 Biological Science Building
University of Missouri-Kansas City
Kansas City, MO 64110-2499

POSTDOCTORAL POSITION available to study the virucidal effects of photosensitizing merocyanine dyes (mechanism of action, applications in the sterilization of blood products). Ph.D., M.D., or equivalent degree and experience in virology or molecular virology required. Salary commensurate with experience. Send curriculum vitae and three letters of reference to: **Fritz Sieber, Ph.D., MACC Fund Research Center, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226.**

POSTDOCTORAL POSITION available immediately to work on the molecular biology of antioxidant genes in maize. Experience with recombinant DNA techniques required. Send résumé and three reference letters to: **Dr. John G. Scandalios, Department of Genetics, North Carolina State University, Raleigh, NC 27695-7614.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL/ASSOCIATE RESEARCH SCIENTIST positions available in the Department of Pharmacology at Yale University School of Medicine to study: (i) mechanisms of action of drugs on hypoxic tumor cells with emphasis on the reductive activation of bioreductive alkylating agents and (ii) mechanism of drug-induced differentiation of neoplastic cells. Ph.D. required and experience in biochemistry and/or pharmacology desired. Deadline for receipt of applications is 31 January 1990. Send curriculum vitae and three letters of reference to: **Dr. Alan C. Sartorelli, Director, Comprehensive Cancer Center, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.**

Yale University is an Equal Opportunity/Affirmative Action Employer. The Department of Pharmacology encourages applications from women and minority group members.

The Southeastern Forest Experiment Station is recruiting for a **PROGRAM MANAGER** that is an interdisciplinary position between the GS-401, General Biological Science Series, and the GS-1301, General Physical Sciences Series.

Requires graduate university course work in forest ecology, forest biology, or related disciplines. Position will coordinate multidisciplinary research and monitor the interactive responses among forest ecosystems, atmospheric pollution, and climate changes to determine the effects of atmospheric change on forest environments. The successful applicant will be expected to administer a comprehensive program and provide input to station management in review and response to legislative and regulatory proposals.

Salary range is \$41,121 to \$48,592 per year. This position is located in Raleigh, North Carolina. Qualified individuals should send a one-page résumé to:

Donald Downs, Personnel
Attention: Early Alert (89-569)
Southeastern Forest Experiment Station
P.O. Box 2680
Asheville, NC 28802

PSYCHOPHARMACOLOGIST. The Department of Psychology of the University of Illinois at Urbana-Champaign invites applications for a tenure-track faculty position beginning fall 1990. Candidates conducting research in any area of psychopharmacology/neuropharmacology will be considered. The search is for an assistant professor, but outstanding candidates at other levels are encouraged to apply. Salary negotiable. Send curriculum vitae, reprints, a statement of research interests, and three letters of recommendation by 15 January 1990 to: **Dr. Janice Juraska, Psychology Department, University of Illinois, 603 East Daniel, Champaign, IL 61820.** Telephone: 217-333-8546. *Affirmative Action/Equal Opportunity Employer.*

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We currently have an immediate opening for an Information Scientist in the Applied Clinical Research Section of the Respiratory and Analgesic Care Categories.

The individual we seek will report to the Director of Applied Clinical Research with responsibility for the review and analysis of the clinical and therapeutic literature leading to thoroughly researched reports and positions.

The successful candidate will possess a minimum B.A./B.S. in a Biological Science. M.S., Ph.D or a Pharm.D. is preferred. An appreciation for and experience in clinical investigation and scientific writing beyond your degree is required as is a working knowledge of computer retrieval systems in medicine, biology and business. Excellent oral, written, and interpersonal skills are essential.

We offer a competitive salary and comprehensive benefits package in a stimulating work environment. Please forward your resume with salary history and requirements to: Richardson-Vicks U.S.A., R&D Personnel Dept. DKR-1, One Far Mill Crossing, Shelton, CT 06484. An equal opportunity employer m/f/h/v.



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RESEARCH SCIENTIST

You'll be responsible for overseeing general laboratory functions, the supervision of lab technicians, performance of complex lab experiments, maintaining detailed records, reports and data banks, the design of in-vitro test models and experimental protocols, and interaction with our Project Director.

In order to qualify, we require 8-10 years Medical Devices experience and both a BS and Masters degree in either Chemistry, Biology, Pharmacy or Biochemistry.

In return for your expertise, we will provide you with a competitive salary and comprehensive benefits plan which includes medical, dental and life insurance, along with a 401(K) plan, company-paid pension plan, tuition reimbursement, and an elder/childcare assistance plan. Qualified individuals are invited to submit their resume and salary history in confidence to: **National Medical Care, 22 Paris Avenue, Rockleigh, NJ 07647, Attn: Human Resources Dept. S1110.** Principals only please. Equal Opportunity Employer.

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DEPARTMENT OF THE ARMY, SENIOR EXECUTIVE SERVICE VACANCY DIRECTOR, ELECTRONICS DIVISION

U.S. Army Laboratory Command, U.S. Army Research Office
Research Triangle Park, North Carolina

Applications are being accepted for the position of Director, Electronics Division. This is a Civil Service position in the Senior Executive Service (SES) with a salary range of \$68,700 - \$80,700 per annum.

The incumbent manages a budget of \$12 million dollars a year and supervises 6-10 professionals in the development of an electronics research program taking into account current technology deficiencies. Plans and organizes the extramural basic research program in electronics. Develops short and long-range objectives. Maintains close liaison with Army laboratories and test and operational agencies for transfer of information between in-house scientists and the extramural scientific community. Continually evaluates program for attainment of objectives. Represents the Army Research Office in meetings with university faculty members, administrators and industrial researchers to describe areas of interest and policies. Serves as the technical authority for the total Army research mission in electronics.

Applicants must clearly show that they have had experience of the scope and quality sufficient to carry out the assignments of the position. Best qualified candidates must have demonstrated possession of the following managerial and technical qualifications: **MANAGERIAL** - (1) Ability to see that key national and agency-wide goals, priorities, values and other issues are taken into account in carrying out the responsibilities of the immediate work unit; (2) Ability to establish and maintain relationships with key individuals and groups outside the immediate work unit and to serve as spokesperson for the unit or organization; (3) Ability to establish goals and the structure and processes necessary to carry them out; (4) Knowledge of procedures and activities related to obtaining and allocating the resources necessary to support program or policy implementation; (5) Ability to see that people are appropriately employed and dealt with fairly and equitably; and (6) Ability to see that plans are being implemented and/or adjusted as necessary and that appropriate results are being achieved. **TECHNICAL** - (1) Knowledge of state-of-the-art developments in electronics research; (2) Ability to communicate verbally with top level scientists in fields related to electronics. An advanced degree in electrical/electronics/computer engineering, physics or related field is desired.

Applicants must submit a completed SF 171, Application for Federal Employment (available at Federal Job Information Centers and Federal Personnel Offices) and a supplemental statement on bond paper which addresses each qualification listed above to U.S. Army Materiel Command, ATTN: AMCPE-CS, 5001 Eisenhower Ave., Alexandria, VA 22333-0001. Supplemental forms will be provided to all applicants by this office. Additional information may be obtained by calling (202) 274-9415/6.

Applications must be received or postmarked by November 20, 1989.

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BIOCHEMIST/ ENZYMOLOGIST

Careers In A World Class R&D Community!

Unilever Research U.S., Inc., the American research facility of Unilever, a leading worldwide consumer products company, has an immediate opening for a Biochemist in our Biochemistry and Microbiology Section located in Edgewater, New Jersey.

The selected candidate will contribute actively to our R&D programs in the household products area. Qualified applicants should have a Ph.D. in Biochemistry or a related area of chemistry with experience in Microbiology. Experience in the analysis/characterization of enzymes, modern methods of protein purification and molecular modeling is critical. Additional experience in industrial microbiology or protein stabilization would be beneficial. This is a career opportunity which requires excellent interpersonal, organizational and communication skills.

As a member of the Unilever team, you will work with state-of-the-art instrumentation in an exciting, growth-oriented organization, and will also have the opportunity to interact with scientists associated with Unilever's European Research Laboratories. If you wish to be considered for this position, please send your resume to: Mr. Jim Conti, Manager, Employee Relations.



Unilever Research U.S., Inc.
45 River Road, Edgewater, New Jersey 07020
An Equal Opportunity Employer M/F

POSITIONS OPEN

Two **POSTDOCTORAL POSITIONS** available to study the pathogenesis of inflammatory tissue damage as well as the regulation of tumor cell-endothelial cell interactions [*N. Engl. J. Med.* **320**, 365 (1989); *J. Biol. Chem.* **264**, 13801 (1989); *J. Clin. Invest.* **83**, 1122 (1989)]. Strong background in biochemistry or protein chemistry is essential. Submit curriculum vitae and names and addresses of two references to: **Dr. Stephen J. Weiss, University of Michigan Medical Center, Simpson Memorial Institute, Department of Internal Medicine, 102 Observatory Street, Ann Arbor, MI 48109.**

PSYCHOLOGY: Assistant professor, tenure-track position. Ph.D. required. Physiological psychology or related biologically oriented specialty. Successful applicant will teach courses in physiological, health/medical/neuropsychology, and introductory psychology, and play the leading role in designing an interdisciplinary curriculum which integrates psychology and biology. Possibility of serving as part-time pre medical adviser also exists. Primary interest and commitment to quality undergraduate instruction plus research is expected. Applications, consisting of teaching and research interests. Curriculum vitae, transcripts, and three letters of recommendation should be submitted to: **Dr. D. W. Farmer, Vice President and Dean for Academic Affairs, King's College, 133 North River Street, Wilkes-Barre, PA 18711.** Application deadline: 22 December 1989. *King's College is an Equal Opportunity Employer and specifically invites and encourages applications from women and minorities.*

RESEARCH ASSOCIATE PEPTIDE ANALYTICAL CHEMIST

Position available immediately for a Ph.D.-level chemist or biochemist with published expertise in isolation, purification, characterization, and identification of bioactive peptides. The individual is expected to play a major role in a contracted project involving the identification of neuropeptides which affect gonadotropin secretion. Fully equipped state-of-the-art analytical facilities available. Better-than-competitive salary. Curriculum vitae; names, addresses, and phone numbers of three references; and a brief statement of expertise with reference to publications should be sent to: **Dr. Marc E. Freeman, Department of Biological Science (B-157), Florida State University, Tallahassee, FL 32306-3050.**

RESEARCH ASSISTANT PROFESSOR OR RESEARCH ASSOCIATE. National Institutes of Health funded position to study the role of agrin, a synapse-organizing protein, and other extracellular matrix molecules in synapse formation and differentiation of muscle [*J. Cell Biol.* **106**, 1263; *Dev. Biol.* **130**, 471 (1988)]. mRNA expression and in situ hybridization studies will be used to study development; function will be assayed in culture with blocking antibodies. Experience in recombinant DNA technology, in situ hybridization, and embryology desirable. Competitive salary and benefits. Send curriculum vitae and names and addresses of three references to: **Earl W. Godfrey, Ph.D., Department of Anatomy and Cellular Biology, Medical College of Wisconsin, Milwaukee, WI 53226.** *Affirmative Action/Equal Opportunity Employer. M/F/H.*

UNIVERSITY OF MICHIGAN HOSPITAL

The University of Michigan is seeking applicants for a full-time **RESEARCHER** (Ph.D., M.D., or equivalent) position with background in cellular biology and/or molecular genetics to direct cellular biology program in the thoracic surgery thoracic laboratory. Interests should include normal cell differentiation, cellular immunobiology, and oncogenesis, and complement research programs in thoracic oncology, cardiac and lung transplantation, myocardial ischemia and protection, and acute and chronic lung injury. Should have demonstrated ability to publish in peer-reviewed journals and to obtain extramural funding. If interested, please send curriculum vitae to:

Mark B. Orringer, M.D.
Professor and Head
The University of Michigan Hospitals
Section of Thoracic
Department of Surgery
2110 Taubman Health Care Center
Ann Arbor, MI 48109-0330

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POSITIONS OPEN

RESEARCH DIRECTOR

CENTER OF EXCELLENCE: FIELD BIOLOGY. Ph.D., experimental ecology, 12-month tenure track, coordinate planning of center research programs, develop an externally funded research program; 50% administrative, 50% research. Successful background in external funding required. Individuals with funded grants or research proposals in final review status given preference. Center is developing biotic database for Land Between the Lakes (LBL). The research director will coordinate planning of experimental ecology studies in LBL. Salary commensurate with experience. Send transcripts, curriculum vitae, and three letters of recommendation to: **Dr. B. P. Stone, Chairman, Biology Department, Austin Peay State University, Clarksville, TN 37044.** Closing date: 31 January 1990 or until filled. Appointment: 1 August 1990. *APSU is an Equal Opportunity/Affirmative Action Employer. Minorities, women, and members of other protected groups are encouraged to apply.*

RESEARCH ASSOCIATE, Ph.D. in chemistry or biochemical pharmacology. Two years of experience in the areas of oncogenesis, biochemistry, and signal transduction. Will conduct research in understanding the molecular and cellular mechanisms of cell activation and regulation using lipid chemistry, enzymology, protein purification on FPKLC, DNA molecular techniques, immunohistochemistry, and tissue culture. Salary: \$19,600 per year. Minimum 40 hours per week. If not a U.S. citizen, state current visa classification. Apply to: **Employment Security Commission of North Carolina, 516 North Mangum Street, Durham, NC 27701.** Please quote job order number 3090774, dot code 090.227-010.

RESEARCH ASSOCIATE UNIVERSITY OF GUELPH DEPARTMENT OF BIOMEDICAL SCIENCES CRYOBIOLOGY OF MAMMALIAN EMBRYOS

An experienced cryobiologist is sought to lead the cryopreservation sector of a research and development program involving the manipulation of bovine embryos. The appointment will be for a 4-year term initially.

Applications, including a curriculum vitae and the names of two academic referees, should be sent before 31 December 1989 to: **Professor K. J. Betteridge, Department of Biomedical Sciences, University of Guelph, Guelph, Ontario, N1G 2W1, Canada.** Telephone: 519-824-4120, ext. 8258; FAX 519-767-1450.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Guelph is committed to employment equity.

RESEARCH ASSOCIATE

Positions are available immediately to study transcription, replication, and packaging signals of influenza virus RNAs and to develop new viral and bacterial vaccines using molecular biological technologies. Applicants with Ph.D. or M.D. degree should have experience in virological, molecular, biological, and/or tissue culture techniques. Starting salary commensurate with experience. Please send curriculum vitae to: **Dr. Peter Palese, Department of Microbiology, Box 1124, The Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.** *An Equal Opportunity Employer.*

ASSISTANT RESEARCH SCIENTIST UNIVERSITY OF FLORIDA DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

The Department of Biochemistry and Molecular Biology at the University of Florida is seeking candidates for the position of assistant research scientist (non-tenure track). Candidates should possess a Ph.D. in biochemistry or related field and have 3 to 5 years of experience in molecular biology and cell culture techniques. Anticipated starting date is 15 December 1989. Reply by 30 November 1989 to:

Sheldon Schuster, Ph.D.
Box J-245
University of Florida Health Science Center
Gainesville, FL 32610

An Equal Employment Opportunity/Affirmative Action Employer.

POSITIONS OPEN

RESEARCH AND DEVELOPMENT SCIENTIST

BIOTECHNOLOGY. Candidate must possess Ph.D. in organic chemistry, biochemistry, or molecular biology with experience in nucleic acid chemistry. Experience in DNA/RNA peptide synthesis as well as automated instrumentation is desirable. Salary commensurate with experience. Golden opportunity for challenge and growth in a young dynamic biotechnology firm. Send résumé to: **Janet Cannon, Biotix, Inc., Commerce Park, Corporate Drive, Danbury, CT 06810.**

SCIENTIFIC PROGRAMMING

Fein-Marquart Associates (FMA) is a small, established, computer software research and development firm specializing in scientific programming and database systems, especially chemical information systems and laboratory information management systems. Projects vary in size and use a variety of sophisticated computer environments, from microcomputers to large mainframes.

As part of its current expansion, FMA seeks experienced programmers with scientific degree(s) and experience with Fortran, C, and relational database systems.

Please send résumé to: **Fein-Marquart Associates, Inc., 7215 York Road, Baltimore, MD 21212.** Telephone: 301-821-5980.

STAFF SCIENTIST. OCEANOGRAPHY SUBSTITUTIONAL REPLACEMENT position is available to teach oceanography in an innovative undergraduate program, Sea Semester. Course consists of 6 weeks of intensive classroom instruction followed by 6 weeks of teaching on board our sailing research vessels in waters between the Caribbean and Newfoundland. The successful candidate will teach two courses during a 1-year period, spending about 14 weeks at sea. Ph.D. in marine science required. Contract dates 1 April 1990 to 31 March 1991, with a possibility of extension. Please send résumé and three letters of recommendation by 30 November 1989 to: **Dr. Jerry Cheney, Sea Education Association, P.O. Box 6, Woods Hole, MA 02543.** *An Equal Opportunity Employer.*

SIGFRIED AND JANET WEIS CENTER FOR RESEARCH GEISINGER CLINIC DANVILLE, PA 17822

A **STAFF SCIENTIST** (equivalent to assistant professor/associate professor) or **SENIOR SCIENTIST** (equivalent to professor) position is available in the Weis Center for Research. The Geisinger Medical Center is affiliated with Jefferson Medical College. The Weis Center is located in a new research building (65,000 square feet) that accommodates 20 separate laboratories. The research building was completed in May 1987. The focus of the center is cellular and molecular aspects of cardiovascular function and disease. Persons with expertise in molecular and cell biology, including cloning, sequencing, and expression of genes, membrane proteins and receptors, and immunology, and with an interest in research problems broadly relevant to the cardiovascular system will be given preference. Scientists are provided institutional funds for their salaries and support of postdoctoral fellows, research technicians, supplies, and equipment. Employment should begin on or after 1 July 1990. Applications will be accepted until the position is filled. Applications should be addressed to: **Dr. Howard E. Morgan, Senior Vice President for Research, Weis Center for Research, Geisinger Clinic, Danville, PA 17822-2601.** A summary of current research, curriculum vitae, and list of professional referees should be included in the application. *Equal Opportunity Employer M/F/H/V.*

SYSTEMATIC MAMMALOGIST. Central Missouri State University (CMSU) invites applications for a tenure-track **ASSISTANT PROFESSOR** beginning fall semester 1990. Ph.D. with full-time teaching experience and molecular or cellular techniques proficiency required. To teach mammalogy, wildlife conservation, and ecology; curate mammal collection; and pursue research. Send curriculum vitae, transcripts of college work, and three recommendation letters to: **Search Committee, Biology Department, CMSU, Warrensburg, MO 64093-5053.** Considerations begin 26 December 1989 and will continue until a suitable candidate is selected. *Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to apply.*

Senior Biochemist

We have just created a post for an ambitious, innovative biochemist, preferably with relevant experience in the drug industry, to establish and lead an important new team in the Biochemistry Department of our Cellular and Molecular Sciences Division.

You will initiate and develop programmes to find immunomodifying drugs for use in autoimmune disease, allergy and asthma. Although a knowledge of immunology would be useful, your primary practical experience will have been in protein characterisation and enzymology.

This is an ideal career opportunity with scope for managerial advancement for an ambitious individual with the right profile of experience and the ability to focus on drug targets.

Glaxo Group Research operates a performance related pay system which will reward your achievement and success in this post. Salary (starting range £19,500 to £23,000) is inclusive of profit related bonus, and is complemented by subsidised sports, social and cafeteria facilities, a non-contributory pension and generous relocation assistance where appropriate.

To apply send a full CV and covering letter which emphasises your major scientific achievements to date to Ted Smith, Research Personnel Manager, Glaxo Group Research, Greenford Road, Greenford, Middlesex UB6 OHE. Telephone: 01-422 3434, ext. 2934, fax number: 01-422 4205. Previous applicants will be automatically reconsidered.

Glaxo Group Research



POSTDOCTORAL FELLOWSHIPS at the University of Washington COLLEGE OF OCEAN AND FISHERY SCIENCES

Applications are requested from new or recent doctorates in science, engineering and from individuals with equivalent degree stature in related fields for fellowships to be awarded in the College.

The College consists of four units covering all aspects of marine science and marine policy. Fellowship holders will be appointed in one of the following departments:

The School of Oceanography carries out basic research in physical oceanography, marine chemistry, marine geology and geophysics, and biological oceanography.

The Institute for Marine Studies focuses multidisciplinary research on marine policy issues arising from man's use of the oceans; relevant disciplinary training may be in any of the social or natural sciences or in law.

The Applied Physics Laboratory carries out research in physical oceanography, polar science, underwater acoustics, and a wide range of engineering disciplines.

The School of Fisheries specializes in fish and shellfish systematics and ecology, aquaculture, quantitative fishery management, environmental toxicology and food science.

Fellowships are awarded for one year, renewable for a second year, with a stipend of \$27,000 and a modest research budget. Health insurance is also provided. A complete application consists of transcripts of the applicant's graduate record, a vita, addresses and telephone numbers of three referees, a synopsis of the doctoral dissertation, and a 1-2 page statement outlining the research the applicant proposes to undertake at UW. Direct contact with faculty in the College is encouraged. All materials must be received by 1 January 1990. Awards will be announced in Spring 1990 (early April). Fellowships are expected to be taken up before 1 September 1990.

Applications and any questions should be addressed to: Search Committee, COFS Postdoctoral Program, Office of the Dean, HN-15 College of Ocean and Fishery Sciences, University of Washington, Seattle, WA 98195.

Equal Opportunity/Affirmative Action Institution
9/25/89v

POSTDOCTORAL CANDIDATES

for Genetic & Cellular Toxicology

The Genetic and Cellular Toxicology Department of Merck Sharp & Dohme Research Laboratories in West Point, PA is seeking postdoctoral candidates for one to three year appointments. Applicants should have a background in genetics, cytogenetics, molecular biology or in vitro toxicology. Current studies are in basic and developmental research in mechanisms of malignancy and various forms of altered gene expression, as well as in the mechanisms and significance of peroxisome and P450 enzyme induction. Significant in vitro toxicology projects are also in progress.

Excellent salary and benefits accompany these positions. Please send resume with cover letter, three letters of recommendation, transcripts, and curriculum vitae to: **Dr. Warren W. Nichols, Executive Director, Cellular and Genetic Toxicology Department W45-204**

Merck Sharp & Dohme Research Laboratories

West Point, PA 19486

EEO/AA/VH/Employer



Merck & Co., Inc.

POSITIONS OPEN

RESEARCH GENETICIST GS-440-11

U.S. Department of Commerce National Marine Fisheries Service, Alaska Fisheries Center, Juneau. Collect and analyze biochemical genetic data to develop and refine stock, identify methods, and apply these methods to provide fishery managers salmon stock composition information. Salary: \$28,852 plus 25% COLA. B.S. in genetics or biology with nine semester hours in genetics and at least 3 years of professional experience or graduate education related to genetics. Contact **Lori Budbill** at 206-526-6066 by 28 November 1989 for application forms. *Equal Opportunity Employer.*

ASSOCIATE TOXICOLOGIST

The California State Department of Health Services is recruiting for associate toxicologists for immediate openings. An employment examination is scheduled for fall 1989. The examination will be based 100% on interviews. Telephone interviews are permissible. Vacancies exist in Sacramento, Emeryville, Berkeley, and Los Angeles. The areas of involvement will be environmental toxicology and risk assessment. The annual salary will start at \$38,304 to \$50,748. To qualify for the associate toxicologist exam, you must have a doctoral degree in toxicology or closely related specialty, or possession of a master's degree in toxicology or closely related specialty, and 3 years of experience past the master's degree. In the area of toxicology; or certification as a Diplomate of the American Board of Toxicology. Please send your résumé to:

**State Department of Health Services
Office of Environmental Health Hazard Assessment
714 P Street, Room 442
Sacramento, CA 95814
Attention: Donna Rowe**

For assistance or further information, call: **Donna Rowe, telephone: 916-323-2249.**

STAFF TOXICOLOGIST

The California State Department of Health Services is recruiting for staff toxicologists for immediate openings. An employment examination is scheduled for fall 1989. The examination will be based 100% on interviews. Telephone interviews are permissible. Vacancies exist in Sacramento, Emeryville, Berkeley, and Los Angeles. The areas of involvement will be environmental toxicology and risk assessment. The annual salary will start at \$50,748 to \$61,392. To qualify for the staff of toxicologist exam, you must have a doctoral degree in toxicology, biochemistry, pharmacology, or a closely related specialty and 3 years of postdoctoral experience in toxicology. Please send your résumé to:

**State Department of Health Services
Office of Environmental Health Hazard Assessment
714 P Street, Room 442
Sacramento, CA 95814
Attention: Donna Rowe**

For assistance or further information, call: **Donna Rowe, telephone: 916-323-2249.**

PARK AND RECREATION DEPARTMENT DALLAS ZOO ZOOLOGIST 12—BIRD DEPARTMENT (CLASS CODE 14430)

The City of Dallas Park and Recreation Department is seeking qualified applicants for the position of Zoologist 12 in the Bird Department of the Dallas Zoo. Responsibilities include research program development and coordination and assisting department curators. Salary range for this position is \$22,344 to \$25,812 depending upon education and experience.

Qualified applicants must be well versed in ornithology, including the behavior, ecology, and physiology of birds. At a minimum, a bachelor's degree and 2 years of related experience required. An advanced degree and extensive technical publications in the life sciences are strongly desired. Position is subject to drug/alcohol testing.

Please submit letter of intent and résumé by 3 December 1989 to:

**Staffing Manager
Personnel Department
City Hall, Room 6AN
Dallas, TX 75201**

Equal Opportunity Employer M/F/H

Please indicate on application/résumé that you are applying for the Zoologist 12 position at Dallas Zoo.

POSITIONS OPEN

UNIVERSITY OF MICHIGAN HOSPITAL

UROLOGIST. The Department of Surgery, Section of Urology, is seeking a Board-certified or eligible urologist who is completing or has completed his/her residency within the past several years, has experience as an investigator, is a competent clinician and surgeon, and also is interested in an academic career. Instructor through professor level will be determined by credentials. All inquiries should be directed to:

**Edward J. McGuire, M.D.
Professor and Head
The University of Michigan Hospitals
Section of Urology
Department of Surgery
1500 East Medical Center Drive
Ann Arbor, MI 48109-0330**

A Nondiscriminatory/Affirmative Action Employer.

ASSISTANTSHIPS

TEACHING AND RESEARCH ASSISTANTSHIPS IN MOLECULAR BIOLOGY AND NEUROBIOLOGY

M.S.: \$5,150 to 5,450; Ph.D.: \$6,400 to \$6,700 per academic year. Partially funded by a grant from the Minority Biomedical Research Support Programs (NIH).

Call or write to:

**Dr. F. Schwalm
Chair, Department of Biology
Texas Woman's University
Denton, TX 76201
Telephone: 817-898-2351**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS AND GRADUATE RESEARCH ASSISTANTSHIPS IN PHOTOSYNTHESIS ARIZONA STATE UNIVERSITY TEMPE, ARIZONA

Postdoctoral fellowships and research assistantships are available through the Center for the Study of Early Events in Photosynthesis, Arizona State University (ASU), in the following faculty research programs: biochemistry, biophysics and molecular genetics of photosynthetic organisms, organic synthesis of photosynthetic model systems, theoretical chemistry, electrochemistry, picosecond laser spectroscopy, and nuclear magnetic resonance spectroscopy. M.S. and Ph.D. degree programs are administered through the Department of Botany and the Department of Chemistry. Annual stipends for postdoctoral fellowships are \$21,200; research assistantships range from \$9,840 to \$12,667. Please send résumé and three letters of reference to: **Robert E. Blankenship, Director, Center for the Study of Early Events in Photosynthesis, Department of Chemistry, Arizona State University, Tempe, AZ 85287-1604.** *ASU is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOWS EXPERIMENTAL MYCOLOGY MOLECULAR PLANT BIOLOGY PLANT CELL CULTURE

Three 2-year postdoctoral fellow positions are available immediately to study genetic manipulation of mycorrhizal fungi, molecular mechanisms associated with environmental factors to stress protein expression, and cellular and molecular mechanisms associated with the micropropagation and development of cold-hardy *Eucalyptus* genotypes. Experience in biochemistry, genetics, molecular biology, and plant tissue culture is preferred. The deadline for application is 24 November 1989. Applicants should forward curriculum vitae and names and addresses of three references to:

**Dr. Joe H. Cherry
Department Head
Botany and Microbiology Department
129 Funchess Hall
Auburn University
Auburn University, AL 36849-5407
Telephone: 205-844-4830**

Auburn University is an Equal Opportunity/Affirmative Action Educational Institution.

RESEARCH ASSOCIATE/ SCIENTIST

Merck Sharp & Dohme Research Laboratories is currently offering an opportunity to join an established HIV biology laboratory to participate in HIV therapeutics and vaccine programs. The position does not involve handling of infectious virus. Experience in cell culture, molecular biology/virology and/or immunologic techniques is desired. Persons with a B.A./B.S./M.S. and previous research experience, or with a Ph.D., are invited to apply.

Excellent salary and benefits programs accompany this position at our West Point laboratories located 25 miles northwest of Philadelphia. Please send curriculum vitae with cover letter to: **Ad C-40 — Personnel Manager, W42-2**

**Merck Sharp & Dohme
Research Laboratories
West Point, PA 19486**

Equal Opportunity Employer



Merck & Co., Inc.

FELLOWSHIP LABORATORY OF NEUROSCIENCES

The Laboratory of Neurosciences in the National Institute on Aging, National Institutes of Health, Public Health Service, invites applications for a Fellowship position to study the neurobiology of genes from human chromosome 21 and mouse chromosome 16 by the use of transgenic cultured neurons and the development of transgenic mice. Current laboratory projects include the effects of human trisomy 21 (Down Syndrome) and mouse trisomy 16 (a model of trisomy 21) or ionic currents, gene expression, lipid metabolism and receptor-second messenger signalling. Candidates should have experience in molecular biology and interest in the isolation of genes and chromosomal segments with the aim of determining the role of specific genes in aneuploid-related neurophysiological abnormalities. Available from late 1989 - early 1990. Position is located in Bethesda, Maryland and salary is commensurate with qualifications. Send resume and the names of three references to:

**Stanley I. Rapoport, M.D.
Chief, Laboratory of Neurosciences
National Institute on Aging
Bldg. 10, Room 6C-103
9000 Rockville Pike
Bethesda, Maryland 20892
U.S.A.**



NIH IS AN EQUAL OPPORTUNITY EMPLOYER



DEPARTMENT OF THE ARMY,
SENIOR EXECUTIVE SERVICE VACANCY
DIRECTOR, PHYSICS DIVISION
U.S. Army Laboratory Command, U.S. Army Research Office
Research Triangle Park, North Carolina

Applications are being accepted for the position of Director, Physics Division. This is a Civil Service position in the Senior Executive Service (SES) with a salary range of \$68,700 – \$80,700 per annum.

The incumbent manages a budget of \$10-\$15 million dollars a year and supervises 4-8 professionals in the development of a physics research program taking into account current technology deficiencies. Plans and organizes the extramural basic research program in physics and related fields. Develops short and long-range objectives. Maintains close liaison with Army laboratories and test and operational agencies for transfer of information between in-house scientists and the extramural scientific community. Continually evaluates program for attainment of objectives. Represents the Army Research Office in meetings with university faculty members, administrators and industrial researchers to describe areas of interest and policies. Serves as the technical authority for the total Army research mission in physics.

Applicants must clearly show that they have had experience of the scope and quality sufficient to carry out the assignments of the position. Best qualified candidates must have demonstrated possession of the following managerial and technical qualifications: **MANAGERIAL** – (1) Ability to see that key national and agency-wide goals, priorities, values and other issues are taken into account in carrying out the responsibilities of the immediate work unit; (2) Ability to establish and maintain relationships with key individuals and groups outside the immediate work unit and to serve as spokesperson for the unit or organization; (3) Ability to establish goals and the structure and processes necessary to carry them out; (4) Knowledge of procedures and activities related to obtaining and allocating the resources necessary to support program or policy implementation; (5) Ability to see that people are appropriately employed and dealt with fairly and equitably; and (6) Ability to see that plans are being implemented and/or adjusted as necessary and that appropriate results are being achieved. **TECHNICAL** – (1) Knowledge of state-of-the-art developments in physics research; (2) Ability to communicate verbally with top level scientists in fields related to physics. An advanced degree in physics is desired.

Applicants must submit a completed SF 171, Application for Federal Employment (available at Federal Job Information Centers and Federal Personnel Offices) and a supplemental statement on bond paper which addresses each qualification listed above to U.S. Army Materiel Command, ATTN: AMCPE-CS, 5001 Eisenhower Ave., Alexandria, VA 22333-0001. Supplemental forms will be provided to all applicants by this office. Additional information may be obtained by calling (202) 274-9415/6.

Applications must be received or postmarked by November 20, 1989.

THE DEPARTMENT OF THE ARMY IS AN EQUAL OPPORTUNITY EMPLOYER

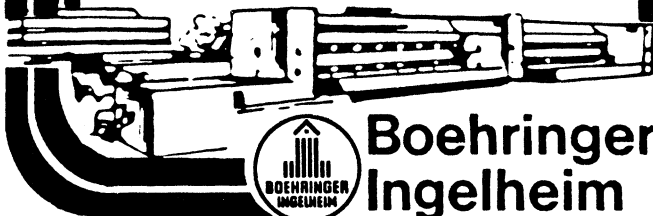
POSTDOCTORAL POSITION

BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc. is engaged in the discovery, development, manufacture and marketing of novel therapeutic agents. Our expansion and commitment to research has created the opportunity for the following postdoctoral position in our drug discovery programs.

We are seeking a **BIOCHEMIST** to investigate structural and functional aspects of phospholipases thought to play a role in human inflammatory disease. Experience in protein chemistry and recombinant DNA methodology is highly desirable.

BOEHRINGER INGELHEIM offers a competitive salary and benefits package, modern and fully equipped laboratories and the opportunity to apply your education and experience to challenging areas of research. Our Research and Development Center is situated in DANBURY, CONNECTICUT.

Candidates interested in this position should send a curriculum vitae, along with the names of three references, to: Dept. JC-1S-TP, BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc., 90 East Ridge, P.O. Box 368, Ridgefield, CT 06877. We are an equal opportunity employer m/f/h/v.



PRODUCT DEVELOPMENT MANAGEMENT

Associate Director Development Planning and Coordination Cardiovascular Agents

This position presents a challenging opportunity to make significant contributions to the interdisciplinary product development process. Training/experience in cardiovascular research and development are required.

The individual selected for this position will work closely with all of the functional groups involved in both preclinical and clinical development studies, as well as the Regulatory Affairs and Business Development Departments, to plan, implement, and monitor development activities from identification of a drug candidate to NDA approval and market launch. Responsibilities include working with multidisciplinary project teams and the various development departments to prepare Interdisciplinary Development Plans for each new drug candidate, comprehensive Quarterly Status Reports for all worldwide development projects, and in general, assist individual departments to keep projects on track. This person will serve as a Project Manager to provide technical and administrative leadership for two cardiovascular development teams.

A Ph.D. in the medical sciences (e.g., pharmacology, physiology, pharmacy) and 7 to 10 years experience in pharmaceutical industry R&D are required. Experience in multiple drug development areas is desirable. Excellent organizational, interpersonal and written/verbal communication skills are essential for this high-visibility position.

Squibb is conveniently located midway between Philadelphia and New York in a pleasant semi-rural environment. This position in a newly-formed department offers outstanding opportunity for growth and an excellent salary/benefits package.

Please forward your curriculum vitae in confidence to: **Squibb, Dept. PJF, P.O. Box 4000, Princeton, NJ 08543-4000.** An equal opportunity employer.

SQUIBB

A Bristol-Myers Squibb Company

FELLOWSHIPS

NEUROBIOLOGY POSTDOCTORAL FELLOWSHIPS. The Neurobiology Program invites applications from individuals with interests in the following faculty research areas: developmental neurogenetics, central pattern generators, cardiovascular regulation, psychobiology of stress in diabetes, muscle regeneration, excitation-contraction coupling, neural crest cell differentiation, brain-behavior relationships, spinal and descending control of movement, retinal physiology, musculoskeletal mechanics, and auditory neurobiology. Salaries, starting at \$18,000, are provided by federal research grants and state funds. Research facilities are excellent. Earliest start date is 1 July 1990. Applicants should send curriculum vitae, statement of research interests, and names of three references by 1 December 1989 to: **E. H. Peterson, Neurobiology Program, Department of Zoological and Biomedical Sciences, Ohio University, Athens, OH 45701.** Ohio University is an Equal Opportunity/Affirmative Action Employer.

DREXEL FELLOWSHIPS IN BIOMEDICAL ENGINEERING AND SCIENCE

Drexel fellowships in biomedical engineering and science are supported by the Calhoun Endowment. Students can specialize in the following areas: artificial organs, bioinstrumentation, biomedical imaging and signal processing, biomedical science, biomaterials, biomedical systems and control, cardiovascular dynamics, diagnostic ultrasound, sensors and electrodes, biomechanics, and rehabilitation. Each fellowship includes a minimum stipend of \$9,750 for a 12-month appointment beginning fall 1990. With a waiver of all tuition and fees, this award is worth approximately \$21,000. Deadline for application is 28 February 1990. For application write: **Dr. Dov Jaron, Director, Biomedical Engineering and Science Institute, Drexel University, Philadelphia, PA 19104.**

POSTDOCTORAL FELLOWSHIP POSITION MOLECULAR IMMUNOLOGY AND VIROLOGY

A postdoctoral position is immediately available for the study of either the molecular biology of HTLV-I and HIV-1, structure-function relationships in the human interleukin-2 receptor, or DNA binding proteins that regulate transcription of T cell activation genes. Prior experience in molecular biology and/or biochemistry is required. Interested applicants should send curriculum vitae and names of three references to: **Dr. Dean W. Ballard, c/o Dr. Warner C. Greene, Howard Hughes Medical Institute, Duke University Medical Center, P.O. Box 3037, Durham, NC 27710.** Telefax: 919-684-5458.

POSTDOCTORAL FELLOW OR RESEARCH ASSOCIATE

Position available immediately. Research project involves studies on regulation of gene expression, of cell surface receptors, and mitogenesis in cultured airway smooth muscle. Candidates should have a Ph.D. with primary interest in pharmacology and experience with methods in cell and molecular biology. Send curriculum vitae and three letters of reference to: **Michael M. Grunstein, M.D., Ph.D., Division of Pulmonary Medicine, Children's Hospital of Philadelphia, 34th Street and Civic Center Boulevard, Philadelphia, PA 19104.** Equal Opportunity Employer.

RESEARCH FELLOWSHIPS IN EPIDEMIOLOGY OF LUNG DISEASES

National Institutes of Health-supported stipends and tuition fees for a 2-year program working in airways hyperreactivity and/or natural history studies on chronic lung diseases along with didactic training in epidemiology leading to a master's degree from Harvard University. Must be eligible in internal medicine or equivalent. Candidates with clinical training in pulmonary diseases preferred but not required. Available for U.S. citizens and permanent residents. Inquire: **Frank E. Speizer, M.D., Professor in Medicine, Harvard Medical School, Co-director, Channing Laboratory, Department of Medicine, Brigham and Women's Hospital, 180 Longwood Avenue, Boston, MA 02115.** This program specifically encourages applications by minority group members. The Brigham and Women's Hospital is an Equal Opportunity Employer.

FELLOWSHIPS

Rutgers, The State University of New Jersey, offers a USDA National Needs **PREDOCTORAL FELLOWSHIP** in human nutrition and food science. Ph.D. students may enroll in either the nutrition or food science graduate program. Requirements: 3.5 GPA, 1200 GRE, and dissertation research at the interface between food science and nutrition. Stipend: \$15,000 per year and tuition remission for up to 3 years. The Departments of Nutritional Sciences and Food Science offer a number of assistantships and fellowships to quality graduate students. For further information and application forms, contact: **Dr. Daryl Lund, Department of Food Science, P.O. Box 231, Rutgers University, New Brunswick, NJ 08903.** An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIPS

The Division of Immunopathology and Cancer Biology in the Department of Laboratory Medicine and Pathology has occasional openings for postdoctoral fellows. Research conducted in the division comprises a rich diversity of basic and preclinical studies in immunology, hematology, and oncology. Members of the division and their research interests are: J. Greenberg (T cell molecular genetics), J. Kersey (human leukemia biology/genetics), T. LeBien (normal/leukemic B cell development), S. McIvor (gene regulation/gene therapy), and D. Vallera (immunotoxins/experimental bone marrow transplantation). Ambitious candidates with a Ph.D. or M.D. should submit a statement of interest, curriculum vitae, and names of three references to:

**John H. Kersey, M.D.
Box 86 UMHC,
University of Minnesota Medical School
Minneapolis, MN 55455**

POSTDOCTORAL FELLOWSHIPS in molecular biology/applied computer science are available at the Dana-Farber Cancer Institute and the Biostatistics Department of the Harvard School of Public Health. Candidates must have a recent Ph.D. in molecular biology, molecular genetics, or computer science. The research will center on the problems of comparative analysis and identification of genetic sequence patterns. This will involve collaboration with active experimental molecular biologists and computer software developers. One position is available immediately and one anticipated for 1 April 1990. Send curriculum vitae and three letters of reference to: **Dr. Temple F. Smith, Dana-Farber Cancer Institute, 44 Binney Street, Room 1154, Boston, MA 02115.** An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIPS AT THE SCRIPPS INSTITUTION OF OCEANOGRAPHY

Applications are invited for postdoctoral awards from new or recent Ph.D. students in all major areas of research conducted at the Scripps Institution of Oceanography (SIO). Interest areas include physical, chemical, and biological oceanography; marine geology, geochemistry, and geophysics; marine chemistry; marine biology; and ocean engineering. Specific areas of interest might include continental margins and coastal sciences; marine meteorology and air/sea interaction; global climate change; atmospheric chemistry; large-scale ocean circulation; marine microbiology; isotope geochemistry; and satellite oceanography. Awards will be made on a competitive basis with major emphasis on the recipient's potential for independent and creative research. Fellowships will be awarded for 1 year with stipends commensurate with experience, plus benefits and a small budget for publications, travel, etc. Renewals for a second year, depending upon performance, are possible.

Applications should include complete transcripts of graduate records, curriculum vitae, addresses and telephone numbers of at least three references, and a concise synopsis of the applicant's doctoral research and research interests to be pursued at SIO. All application materials must be received by 15 January 1990. Awards will be announced by early April 1990. Application and questions should be addressed to: **Chairman, Graduate Department, Scripps Institution of Oceanography, University of California, San Diego, A-008, La Jolla, CA 92093.**

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

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS in hyperthermia biology, radiation biology, and radiopharmaceutical chemistry.

Four positions available immediately at the Thomas Jefferson University (TJU) Hospital. Ph.D., M.D. D.V.M., or equivalent required. Areas of interest:

- Relationship of heat-induced structural lesions in cytomatrix, nuclear matrix/chromatin complex and mitotic apparatus, to potentially lethal damage and cytotoxicity in synchronous mammalian cells (R. A. Coss, Ph.D.).

- Induction of DNA damage, chromosome damage (PCC) and potentially lethal damage and their repair after ionizing radiation, nonhypoxic cell sensitizers, and/or hyperthermia in mammalian cells and in repair deficient mutants (G. Iliakis, Ph.D.).

- Relationship of protein and RNA synthesis to thermotolerance development and decay, hyperthermia cytotoxicity and stepdown heating in mammalian cells (D. B. Leeper, Ph.D.).

- Radiopharmaceutical studies of organometallic chemistry, radiolabeled monoclonal antibodies and synthesis of novel molecules for diagnostic or therapeutic applications in oncology (M. L. Thakur, Ph.D.).

Salary: \$20,000+ depending on experience. Applicants must be U.S. citizens or permanent residents. Send résumé, names of three references, and indicate investigator of preference to: **Dennis B. Leeper, Ph.D., Professor and Director, Laboratory of Experimental Radiation Oncology, Department of Radiation Oncology and Nuclear Medicine, Thomas Jefferson University, Philadelphia, PA 19107.** TJU is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

TRAINING PROGRAMS

CAREER CHANGE OPPORTUNITY

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

PREDOCTORAL AND POSTDOCTORAL TRAINING IN VIROLOGY AT UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA) SCHOOL OF MEDICINE

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