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EAST-WEST SCIENTIFIC EXCHANGES

Two-week Project Development Visits One to Twelve-month Research Visits To the USSR and Eastern Europe

The National Academy of Sciences (NAS) invites applications from American scientists who wish to make visits to the U.S.S.R., Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, and Yugoslavia. A new program of two-week project development visits begins in April 1990. Also, twelve-month research visits during 1991 will be supported. Special emphasis on young investigators is included in each program.

Applicants must be U.S. Citizens and have doctoral degrees or their equivalent by June 1990 in physics; chemistry; mathematics and computer sciences; earth, atmospheric, and oceanographic sciences; agricultural, forestry, fishery, and plant sciences; biological sciences; environmental sciences; engineering; archaeology and anthropology; geography; psychology; science and technology policy; and the history and philosophy of science. Projects in the economic and social sciences that involve development of new analytical methodologies will be considered on a case-by-case basis. Necessary expenses will be met by the NAS and the foreign academy, including reimbursement for long-term visitors for salary lost up to a predetermined maximum and expenses for accompanying family members for visits exceeding five months.

Requests for applications should reach the National Academy of Sciences not later than February 15, 1990. Applications must be postmarked by February 28, 1990. Address application requests to:

**National Academy of Sciences
Office of International Affairs
Soviet and East European Affairs (HA-166)
2101 Constitution Avenue, N.W.
Washington, D.C. 20418
Telephone: (202) 334-2644**

active concurrently in the two compartments. Setlow considers forespore-specific genes, Losick and Kroos dependence pathways for gene expression, and Stragier the temporal and spatial control of gene expression.

Some species of *Bacillus* have the unusual property of synthesizing a parasporal crystal within the mother cell concomitantly with spore maturation. Since these crystals are lethal to some insect species, their commercial significance has led to great interest in their structure as well as in the genetic mechanisms that govern their synthesis. Lereclus *et al.* provide an update on this topic.

Presenting a perspective on the discipline as a whole, the chapter by Chater draws parallels to the sporulating process in *Streptomyces*, a genus of vast economic importance since the earliest demonstration that the antibiotic these species elaborate has clinical use in treating all us higher eukaryotes.

KENNETH BOTT

Department of Microbiology,
University of North Carolina Medical School,
Chapel Hill, NC 27599

Books Received

Adoptive Cellular Immunotherapy of Cancer. Henry C. Stevenson, Ed. Dekker, New York, 1989. xiv, 242 pp., illus. \$89.75. Immunology Series, vol. 48.

Adverse Reactions to Drug Formulation Agents. A Handbook of Excipients. Murray Weiner and I. Leonard Bernstein. Dekker, New York, 1989. x, 463 pp. \$125. Clinical Pharmacology, vol. 14.

Aerosol Sampling. Science and Practice. James H. Vincent. Wiley, New York, 1989. xxii, 390 pp., illus. \$180.

Album of Science. The Biological Sciences in the Twentieth Century. Merrilely Borell. Scribner's, New York, 1989. xiv, 306 pp. \$75.

Album of Science. The Physical Sciences in the Twentieth Century. Owen Gingerich. Scribner's, New York, 1989. xiv, 306 pp. \$75.

Alcoholism. Biomedical and Genetic Aspects. H. Werner Goedde and Dharam P. Agarwal, Eds. Pergamon, Elmsford, NY, 1989. viii, 364 pp., illus. \$60.01.

The Allometry of Growth and Reproduction. Michael J. Reiss. Cambridge University Press, New York, 1989. xvi, 182 pp., illus. \$44.50.

Alternative Approaches to Lithic Analysis. Donald O. Henry and George H. Odell, Eds. American Anthropological Association, Washington, DC, 1989. xii, 256 pp., illus. Paper, \$13.50; to AAA members, \$10. Archeological Papers of the American Anthropological Association, no. 1. Based on a conference, Tulsa, OK, 1987.

Biotechnology in Europe and Latin America. Prospects for Co-operation. Bernardo Sorj, Mark Cantley, and Karl Simpson, Eds. Kluwer, Norwell, MA, 1989. xviii, 223 pp., illus. \$69. Based on a seminar, Brussels, Belgium, April 1987.

Blacks, Science, and American Education. Willie Pearson, Jr., and H. Kenneth Bechtel, Eds. Rutgers University Press, New Brunswick, NJ, 1989. xxii, 174 pp., illus. \$35.

Concepts and Conceptual Development. Ecological and Intellectual Factors in Categorization. Ulric Neisser, Ed. Cambridge University Press, New York, 1989. x, 317 pp. Paper, \$18.95. Reprint, 1987 ed.

Coral Reefs of the World. Vol. 3, Central and Western Pacific. Susan M. Wells *et al.* International Union for Conservation of Nature and Natural Resources, Cambridge, U.K., 1988 (U.S. distributor, Columbia University Press, New York). 1, 329 pp., illus. \$45.

Electronic Structure and Optical Properties of Semiconductors. Marvin L. Cohen and James R. Chelikowsky. 2nd ed. Springer-Verlag, New York, 1989. xii, 264 pp., illus. Paper, \$39. Springer Series in Solid-State Sciences, vol. 75.

The Epidemiology of AIDS. Expression, Occurrence, and Control of Human Immunodeficiency Virus Type 1 Infection. Richard A. Kaslow and Donald P. Francis, Eds. Oxford University Press, New York, 1989. xiv, 359 pp., illus. \$45.

Evolution and Animal Breeding. Reviews on Molecular and Quantitative Approaches in Honour of Alan Robertson. William G. Hill and Trudy F. C. Mackay, Eds. C.A.B. International, Wallingford, U.K., 1989. xii, 313 pp., illus. \$84.

Evolution and Its Influence. Alan Grafen, Ed. Clarendon (Oxford University Press), New York, 1989. xiv, 130 pp., illus., + plates. \$35. The Herbert Spencer Lectures 1986. Six papers on ideas of evolution in biology (A. J. Cain), sociology (W. G. Runciman), psychology (R. J. Herrnstein), social anthropology (M. Godelier), philosophy (B. Williams), and the arts (E. H. Gombrich).

Evolutionary Tinkering in Gene Expression. Marianne Grunberg-Manago, Brian F. C. Clark, and Hans G. Zachau, Eds. Plenum, New York, 1989. x, 275 pp., illus. \$69.50. NATO Advanced Science Institutes Series A, vol. 169. From a workshop, Spetsai, Greece, Aug. 1988.

Les Explorateurs de la Santé. Voyage au Centre de la Recherche Médicale. Philippe Lazar. Editions Odile Jacob, Paris, 1989. 250 pp. Paper, 120 F.

Fibrewise Topology. I. M. James. Cambridge University Press, New York, 1989. x, 198 pp. \$49.50. Cambridge Tracts in Mathematics, vol. 91.

Floods. Hydrological, Sedimentological and Geomorphological Implications. Keith Beven and Paul Carling, Eds. Wiley, New York, 1989. xii, 290 pp., illus. \$85. British Geomorphological Research Group Symposium Series. From a workshop, Lancaster, U.K.

Olympus Utilisation Conference. (Vienna, Austria, April 1989). European Space Agency, Paris, 1989 (distributor, ESA Publications, Noordwijk, The Netherlands). xlii, 487 pp., illus. Paper, Dfl. 80.

On the Road to Worldwide Science. Contributions to Science Development. Michael J. Moravcsik. World Scientific, Teaneck, NJ, 1988. xxii, 551 pp., illus. \$78; paper, \$38.

Optical Processing and Computing. Henri H. Arsenault, Tomasz Szoplik, and Bohdan Macukow, Eds. Academic Press, San Diego, CA, 1989. xiv, 493 pp., illus. \$59.50.

The Origin of the Solar System. The Capture Theory. John R. Dorman and Michael M. Woolfson. Horwood, Chichester, U.K., and Haldsted (Wiley), New York, 1989. 230 pp., illus. \$49.95. The Ellis Horwood Library of Space Science and Space Technology.

Our Mother-Temps. Marion J. Levy, Jr. University of California Press, Berkeley, 1989. xx, 253 pp. \$25.95.

Perspectives on Particle Physics. From Mesons and Resonances to Quarks and Strings. S. Matsuda, T. Muta, and R. Sasaki, Eds. World Scientific, Teaneck, NJ, 1989. xiv, 406 pp., illus. \$78.

Phänomenologie der Mathematik. Elemente einer Phänomenologischen Aufklärung der Mathematischen Erkenntnis nach Husserl. Dieter Lohmar. Kluwer, Norwell, MA, 1989. viii, 244 pp. \$84. Phaenomenologica, vol. 114.

Photography in Archaeology and Conservation. Peter G. Dorrell. Cambridge University Press, New York, 1989. x, 262 pp., illus. \$39.50. Cambridge Manuals in Archaeology.

Photochemical Energy Conversion. James R. Norris, Jr., and Dan Meisel, Eds. Elsevier, New York, 1989. x, 366 pp., illus. \$75. From a conference, Evanston, IL, July-Aug. 1988.

Photon Defined, Special Relativity Refuted, Electron Self-Field Stabilized. John Frank Johnson. Royal, Roanoke, VA, 1989. iv, 124 pp., illus. Paper, \$50.

Physical Properties of High Temperature Superconductors. Vol. 1. Donald M. Ginsberg, Ed. World Scientific, Teaneck, NJ, 1989. x, 516 pp., illus. \$84; paper, \$48.

The Physics of Ionized Gases. L. Tanović, N. Konjević, and N. Tanović, Eds. Nova Science, Commack, NY, 1989. x, 728 pp., illus. \$145. From a symposium, Sarajevo, Yugoslavia, Aug. 1988.

Pictorial Human Embryology. Stephen G. Gilbert. University of Washington Press, Seattle, 1989. xii, 172 pp. Paper, \$20.

Plant Canopies. Their Growth, Form and Function. G. Russel, B. Marshall, and P. G. Jarvis, Eds. Cambridge University Press, New York, 1989. x, 178 pp., illus. \$47.50. Society for Experimental Biology Seminar Series.

ries, vol. 31. Based on a meeting, Nottingham, U.K., March 1986.

Plant Cell Wall Polymers. Biogenesis and Biodegradation. Norman G. Lewis and Michael G. Paice, Eds. American Chemical Society, Washington, DC, 1989. xii, 676 pp., illus. \$119.95. ACS Symposium Series, vol. 399. From a symposium, Toronto, ON, June 1988.

Plant Pigments. T. W. Goodwin, Ed. Academic Press, San Diego, CA, 1988. x, 362 pp., illus. \$69.50.

Poisons of the Past. Molds, Epidemics, and History. Mary Kilbourne Matossian. Yale University Press, New Haven, CT, 1989. xvi, 190 pp., illus. \$22.50.

Pornography. Research Advances and Policy Considerations. Dolf Zillmann and Jennings Bryant, Eds. Erlbaum, Hillsdale, NJ, 1989. xviii, 419 pp., illus. \$59.95; paper, \$29.95.

The Potato. W. G. Burton. 3rd ed. Longman Scientific, Harlow, U.K., and Wiley, New York, 1989. xii, 742 pp., illus. \$152.

Practical Ephemeris Calculations. Oliver Montenbruck. Springer-Verlag, New York, 1989. x, 146 pp., illus. Paper, \$24.50. Translated from the German edition (Munich, 1987).

Practical Handbook of Biochemistry and Molecular Biology. Gerald D. Fasman, Ed. CRC, Boca Raton, FL, 1989. x, 601 pp. \$45.

Remote Sensing of the Earth's Surface. V. V. Salomonson *et al.*, Eds. Published for the Committee on Space Research by Pergamon, Elmsford, NY, 1989. viii, 324 pp., illus. Paper, \$70. *Advances in Space Research*, vol. 9, no. 1. From a meeting, Espoo, Finland, July 1988.

Rheology of Solids and of the Earth. Shun-ichiro Karato and Mitsuhiro Toriumi, Eds. Oxford University Press, New York, 1989. viii, 440 pp., illus. \$98. Translated from the Japanese edition (Tokyo, 1986).

Rubber-Toughened Plastics. C. Keith Riew, Ed. American Chemical Society, Washington, DC, 1989. xiv, 439 pp., illus. \$89.95. *Advances in Chemistry Series*, vol. 222. From a symposium, New Orleans, LA, Aug.-Sept. 1987.

Schrödinger. Centenary Celebration of a Polymath. C. W. Kilmister, Ed. Cambridge University Press, New York, 1989. x, 253 pp., illus. Paper, \$22.95. Reprint, 1987 ed.

Science in Sweden. The Royal Swedish Academy of Sciences, 1739-1989. Tore Frängsmyr, Ed. Science History Publications (Watson), Canton, MA, 1989. viii, 291 pp., illus. \$45.

Scientific Reasoning. The Bayesian Approach. Colin Howson and Peter Urbach. Open Court, La Salle, IL, 1989. xiv, 312 pp., illus. \$34.95; paper, \$16.95.

Second Vienna Shock Forum. (Vienna, Austria, May 1988.) Günther Schlag and Heinz Redl, Eds. Liss, New York, 1989. xlii, 1142 pp., illus. \$196. *Progress in Clinical and Biological Research*, vol. 308.

Seeing Voices. A Journey Into the World of the Deaf. Oliver Sacks. University of California Press, Berkeley, 1989. xvi, 180 pp., illus. \$15.95.

Selected Papers. Vol. 2, Radiative Transfer and Negative Ion of Hydrogen. S. Chandrasekhar. University of Chicago Press, 1989. xvi, 622 pp. \$74.95; paper \$29.95. Papers dated 1944-1958.

Self-Defeating Behaviors. Experimental Research, Clinical Impressions, and Practical Implications. Rebecca C. Curtis, Ed. Plenum, New York, 1989. xviii, 379 pp. \$45. The Plenum Series in Social/Clinical Psychology.

Semiconductor and Metal Binary Systems. Phase Equilibria and Chemical Thermodynamics. V. M. Glazov and L. M. Pavlova. Consultants Bureau (Plenum), New York, 1989. xii, 307 pp., illus. \$85. Translated from the Russian edition (Moscow, 1981).

Serendipity. Accidental Discoveries in Science. Royston M. Roberts. Wiley, New York, 1989. xviii, 270 pp., illus. Paper, \$12.95. Wiley Science Editions.

Shore Ecology of the Gulf of Mexico. Joseph C. Britton and Brian Morton. University of Texas Press, Austin, 1989. viii, 387 pp., illus. \$49.95; paper, \$22.50.

Sickle Cell Disease. Charles F. Whitten and John F. Bertles, Eds. New York Academy of Sciences, New York, 1989. xiv, 477 pp., illus. \$119. *Annals of the New York*

Academy of Sciences, vol. 565. From a conference, Bethesda, MD, April 1988.

The Social Meaning of Modern Biology. From Social Darwinism to Sociobiology, Howard L. Kaye. Yale University Press, New Haven, CT, 1989. x, 184 pp. Paper, \$9.95. Reprint, 1986 ed.

Spacetime and Singularities. An Introduction. Gregory L. Naber. Cambridge University Press, New York, 1989. x, 178 pp., illus. \$39.50; paper, \$16.95. *London Mathematical Society Student Texts*, vol. 11.

Thinking A.I.D.S. Mary Catherine Bateson and Richard Goldsby. Addison-Wesley, Reading, MA, 1989. viii, 153 pp. Paper, \$7.95. Reprint, 1988 ed.

Time-Harmonic Electromagnetic Fields in Chiral Media. A. Lakhtakia, V. K. Varadan, and V. V. Varadan. Springer-Verlag, New York, 1989. viii, 121 pp., illus. \$21.10. *Lecture Notes in Physics*, vol. 335.

Topology via Logic. Steven Vickers. Cambridge University Press, New York, 1989. xvi, 200 pp. \$39.50. *Cambridge Tracts in Theoretical Computer Science*, vol. 5.

The Toxicity of Chemicals. Carcinogenicity. Vol. 1, Summary Reviews of the Scientific Evidence. A. Berlin *et al.*, Eds. Commission of the European Communities, Luxembourg, 1989. vi, 184 pp. 15 Eur.

Visuomotor Coordination. Amphibians, Comparisons, Models, and Robots. Jörg-Peter Ewert and Michael A. Arbib, Eds. Plenum, New York, 1989. xxxii, 923 pp., illus. \$145. From a workshop, Kassel, F.R.G., Aug. 1987.

Water and Wastewater Microbiology. D. Jenkins and B. H. Olson, Eds. Pergamon, Elmsford, NY, 1989. xvi, 535 pp. + index. Paper, \$108. *Water Science and Technology*, vol. 20, nos. 11-12 (1988). From a conference, Newport Beach, CA, Feb. 1988.

Zeolite Synthesis. Mario L. Occelli and Harry E. Robson, Eds. American Chemical Society, Washington, DC, 1989. xiv, 650 pp., illus. \$139.95. *ACS Symposium Series*, vol. 398. From a symposium, Los Angeles, CA, Sept. 1988.

Protein Folding

A 3-Day Seminar at the
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New Orleans, 15 - 20 February
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Reviews: MacUser, Feb 1989. MacWorld, Feb 1989.

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Reviews: Nature, June 16, 1988. MacGuide, Summer 1988.

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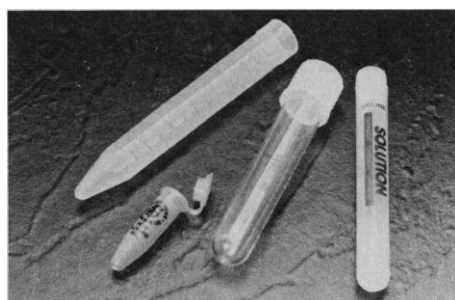
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both water and oil baths. The TRIO Thermoblock allows storage of up to 12 temperature profiles, each having the option of 12 steps. Biometra. Circle 558.

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Literature

Advanced New Spectrometer Series is described in a full-color brochure on the capabilities of the advanced AMX spectrometer series and accessories. Combined with the UNIX operating system, AMX hardware paves the way for completion of complex experiments without cable switching, manual adjustment, or operator manipulations. Bruker Instruments. Circle 442.

Four-color brochures describe the Model 737 Chromatography Data Acquisition System and Controller, a personal computer-based system for complete control of sampling and operation of one or two gas chromatography or high-performance liquid chromatography systems, and the Axi-LAN Chromatography Network for Model 727, 737, and 747 Chromatography Workstations, which permits fast communication and data sharing among workstations interfaced with chromatographs in different locations in a laboratory or building. Axiom Chromatography. Circle 443.

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.

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Salary: \$3632 per month, 40 hours per week, 8:30 a.m. to 5:00 p.m. Send résumé to: **Illinois Department of Employment Security, 401 South State Street, 3 South, Chicago, IL 60605, Attention: Robert S. Felton, Reference #V-IL-9736-F.** An employer-paid ad.

A tenure-track appointment at the **ASSISTANT PROFESSOR** level is available as of September 1990. Qualifications include a Ph.D. and postdoctoral experience. The successful candidate will be expected to teach undergraduate courses in cell biology, developmental biology or genetics, and general biology, and graduate courses in his/her area of expertise, and participate in our genetic engineering option. Training of graduate students at the M.S. level and the ability to develop a fundable research program are expected. Please send your curriculum vitae, reprints, statement of career goals and research plans, and the names and addresses of three references to: **Southern Illinois University at Edwardsville, Biology Department, Box 1651, Edwardsville, IL 62026-1651, Attention: Search Committee,** by 1 January 1990. An Affirmative Action Employer.

ASSISTANT PROFESSOR. Applications are invited for a position at the level of assistant professor (tenure track) in the Department of Chemistry at Stanford University, with primary research and teaching interests in the general area of inorganic chemistry. Applicants must be strongly motivated toward creative research and have a commitment to teaching at the undergraduate and graduate levels. In applying, please send curriculum vitae, list of publications, a brief statement of research interests (three pages or less), and, in addition, have three letters of recommendation sent to: **Professor Harden M. McConnell, Chairman, Department of Chemistry, Stanford University, Stanford, CA 94305.** Stanford is committed to Equal Opportunity through Affirmative Action in employment, and we are especially eager to identify minority persons and women with appropriate qualifications. Applications should be received by 19 January 1990.

POSITIONS OPEN

ASSISTANT CURATOR IN HERPETOLOGY AMERICAN MUSEUM OF NATURAL HISTORY

The Department of Herpetology and Ichthyology invites applications for a tenure-track curatorial position. The prime requisite is vigorous collection-based research in systematics of Recent amphibians and reptiles with preference for a field-oriented specialist on tropical amphibians, lizards, or snakes. Must have a commitment to collection growth and curation, and be willing to assume administrative, education, and exhibition responsibilities as appropriate.

Salary will be commensurate with qualifications and experience. The successful applicant must have completed all requirements for the Ph.D. by time of appointment. Applicants should submit by 15 January 1990: a letter of application with a brief statement of research objectives, curriculum vitae, complete bibliography, and names, addresses and telephone numbers of at least five references. Submit to:

Dr. Charles W. Myers, Chairman
Herpetology Search Committee
American Museum of Natural History
Central Park West at 79th Street
New York, NY 10024-5192

An Equal Opportunity Employer.

ASSISTANT PROFESSOR OF BIOLOGY

Tenure-track position to begin September 1990. Ph.D. required. Teaching will include some combination of cell/molecular biology, general biology, anatomy and physiology, or histology; supervision of undergraduate research. The Biology Department has seven full-time faculty and a strong premedical program. Xavier University is a coed, Jesuit, liberal arts institution with a strong emphasis on quality teaching. Applicants should send curriculum vitae and transcripts, and have three letters of recommendation sent by 15 January 1990 to:

Dr. Carolyn Chambers
Department of Biology
Xavier University
3800 Victory Parkway
Cincinnati, OH 45207

Equal Opportunity/Affirmative Action Employer.

The Biology Department at Salisbury State University (SSU) invites applications for 10-month tenure-track openings at the rank of **ASSISTANT PROFESSOR** to begin fall 1990, one in invertebrate zoology (expected), one in the biology of fish (definite). Ph.D., evidence of teaching excellence, and research potential required. Teaching of introductory and upper-level undergraduate courses for biology majors is the prime focus of these positions. Salary is competitive and commensurate with experience. Forward curriculum vitae, all transcripts, and three letters of recommendation by 1 February 1990 to: **Dr. Harry Womack (invertebrate zoology) or Dr. Laura Murray (biology of fish), Biology Department, Salisbury State University, Salisbury, MD 21801.** SSU is an Affirmative Action/Equal Opportunity Employer. Qualified women, minorities, and disabled persons are encouraged to apply.

TENURE-TRACK ASSISTANT PROFESSOR

Applications are invited for a tenure-track position in chemistry at the rank of **ASSISTANT PROFESSOR**. Ph.D. is required. Salary commensurate with experience. Excellent teaching is essential. Active research is required. Applicant must be willing and qualified to teach organic chemistry and use an interdisciplinary approach to teaching nonscience majors. Initial appointment begins 1 September 1990.

We are a small, liberal arts college located in midtown Manhattan, near many scientific, cultural, and business institutions.

Deadline for applications is 1 February 1990. Send curriculum vitae and three letters of reference to:

Dr. Leonard Nissim, Chairperson
Division of Science and Mathematics
Fordham University
College at Lincoln Center
113 West 60th Street
New York, NY 10023

Fordham University is an Equal Opportunity/Affirmative Action Employer.

GROUP LEADER DIAGNOSTICS

Cangene Corporation has developed a unique and powerful nucleic-acid amplification technology. We are seeking an exceptional individual to lead a team of scientists in the application of this technology to *in vitro* diagnostic assays.

The successful candidate will have:

- A Ph.D. in molecular biology, nucleic acid biochemistry, or closely related discipline;
- Substantial post-educational job experience in the biotechnology industry;
- Strong leadership skills with experience in multi-project management; and
- Proven analytical and communication skills.

Cangene Corporation is located near Toronto, a major academic, corporate and cultural centre in Canada. The Company offers an excellent remuneration package including moving expenses, plus the opportunity to work in a challenging, creative, and goal oriented environment.

Candidates are invited to submit, in strictest confidence, a curriculum vitae, a list of publications, and the names of two referees, quoting file # 731A to: **Manager, Human Resources, CANGENE CORPORATION, 3403 American Drive, Mississauga, Ontario L4V 1T4**



**The Canadian Genetic
Engineering Company**

MONSANTO THAILAND

Monsanto Asia/Pacific Research is seeking a Senior Research Biologist to head a research field station and research operations in Thailand. Applicants should be Thai nationals with a PhD in plant science (plant physiology, agronomy, crop science, weed science, or plant pathology). Applicants with some experience are preferred but qualified new graduates will also be considered. This is a new position within Monsanto Agricultural Company.

Research responsibilities will be product oriented and will include planning, establishment and evaluation of field programs for the advanced evaluation and initial development of new crop protection products for Southeast Asia. The successful candidate will work closely with research colleagues at the Asia/Pacific Research Center in Japan as well as with product development colleagues in Southeast Asia. Applicants should have strong technical and communication skills and the ability to work within a product oriented multidisciplinary team. Written and verbal English proficiency is required.

For confidential consideration send resume and cover letter to: Dr. John L. Killmer, Monsanto Japan Ltd., Room 520 Kokusai Bldg., 1-1 Marunouchi 3-Chome, Chiyoda-Ku, Tokyo 100, Japan, FAX 81-3-287-1250. Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY. Mississippi University for Women seeks applicants for a tenure-track faculty position beginning August 1990. Candidate should have a Ph.D. and a genuine interest in teaching. Responsibilities include biochemistry/cell biology, genetics or immunology, and general biology. Research and publication is encouraged, but not required for advancement in rank or salary. Submit letter of interest, résumé, transcripts, and three letters of recommendation to: **Dr. Harry Sherman, Division of Science/Mathematics, Mississippi University for Women, Columbus, MS 39701**, before 2 February 1990.

ASSISTANT PROFESSOR: DEVELOPMENTAL BIOLOGIST. Department of Biology, St. Louis University, anticipates a tenure-track position for fall 1990 in molecular/cellular biology, biochemistry, and/or genetics of development. Persons using invertebrate or fungal systems are encouraged to apply. Ph.D. with postdoctoral experience and research accomplishments expected. Successful candidate will develop funded research and participate in undergraduate/graduate teaching. Send curriculum vitae, research/teaching interests, reprints, and names, addresses, and phone numbers of three references by 30 December 1989 to: **Dr. R. Bolla, Chair, Department of Biology, St. Louis University, 3507 Laclede, St. Louis, MO 63103**. *St. Louis University is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from women and minority candidates.*

ASSISTANT PROFESSOR

DEPARTMENT OF ANATOMY. Applications are invited for a tenure-track position at the rank of assistant professor beginning July 1990. Applicants should have a Ph.D. or M.D. degree and a minimum of 2 years of postdoctoral experience. The individual appointed to this position must develop an independent research program; a competitive start-up package is available. Some of the ongoing areas of research include: molecular biology of ribosomal genes; anatomy and electrophysiology of locomotor systems; spinal cord development, maturation, and reaction to injury; pathogenesis of ethanol-induced CNS injury; pattern formation during limb development; visual system development; and chronobiology. Teaching responsibilities will be as part of the teaching team in medical gross anatomy and in graduate education as related to research expertise. Send curriculum vitae, statement of research interests, and names and addresses of three references before 15 January 1990 to: **Shirley Ann Gilmore, Ph.D., Professor and Chairman, Department of Anatomy (#510), University of Arkansas for Medical Sciences, 4301 West Markham, Little Rock, AR 72205-7199**.

Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR (PLANT SYSTEMATIST) AND TWO LECTURER OPENINGS

The University of Michigan-Flint, Biology Department, positions to begin fall 1990:

ASSISTANT PROFESSOR, tenure track. Primary teaching responsibilities in plant systematics and other botanical disciplines. Some horticultural experience preferred. Requirements: Ph.D. by September 1990, demonstrated teaching ability, active research record, and broad training in biology.

FULL-TIME LECTURER with primary responsibilities for laboratory instruction in cell biology, physiology, microbiology, and human anatomy and physiology.

FULL-TIME LECTURER with primary responsibilities for laboratory instruction in general biology (botany and zoology) and genetics.

Requirements for lecturer positions: master's degree by September 1990, demonstrated teaching ability and broad training in biology.

Send résumé including course work and teaching areas, copies of recent publications (for assistant professor post), and a list of at least three references to begin screening by 1 February 1990 to: **Dr. Gary L. Pace** (assistant professor position) and **Dr. Eugene H. Studier** (lecturer positions), **Department of Biology, University of Michigan-Flint, Flint, MI 48502-2186**.

This campus is a 6000-student, urban regional unit of the University of Michigan. A new science building has just been occupied (fall 1988). *The University of Michigan-Flint is a nondiscriminatory Affirmative Action Employer, which specifically invites women and minorities to apply. Equal Opportunity Employer.*

POSITIONS OPEN

Augustana College announces a 1-year leave replacement appointment as **ASSISTANT PROFESSOR**. Ph.D. in field of genetics and demonstrated teaching ability are required. Teach a course in genetics and team-teach courses in introductory biology and cell biology. Offer a January interim course. Preference to applications prior to 1 February 1990. Send letter of application; curriculum vitae; graduate transcripts (direct from Registrar's Office); names, identities, and phone numbers of three current references; and a statement of future professional goals to: **Jeanne Kruse, Administrative Assistant, Augustana College, Sioux Falls, SD 57197. Telephone: 605-336-4113. Equal Opportunity/Affirmative Action Employer.**

Florida International University (FIU), the State University of Florida at Miami, is recruiting tenure-track faculty at the **ASSISTANT OR ASSOCIATE PROFESSOR** level in the following areas: (i) physical chemistry, (ii) organic chemistry, and (iii) a joint appointment between the Department of Chemistry and the Drinking Water Research Center for a chemist with research interests in environmental chemistry. Ph.D. required; postdoctoral experience desirable. Active research program expected. Teaching responsibilities at the graduate and undergraduate levels in candidates' areas of expertise. Closing date: 18 January 1990. Send curriculum vitae, transcripts, research plans, and three letters of reference to: **L. Keller, Department of Chemistry, Florida International University, Miami, FL 33199.** FIU is rapidly growing, with over 19,000 students. A new chemistry/physics building will open in 1990. *FIU is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF MEDICINE, Infectious Disease Section, Yale University. Position available for an M.D. with training in infectious diseases to devote at least 80% time to basic investigation and also have attending responsibilities at Yale-New Haven Hospital. Newly renovated laboratory space is available, contiguous with other laboratories within the Infectious Disease Section. Salary support and start-up funds will be provided for a period of 2 years through the Division of Infectious Disease/Department of Medicine. Individuals studying host defense mechanisms, microbial virulence determinants, or viral pathogenesis at the molecular level are particularly encouraged to apply. The Infectious Disease Division at Yale University has a strong collaborative tie with the departments of cell biology and with the MacArthur group in molecular parasitology within the Department of Epidemiology and Public Health.

Candidates must be certified or eligible for certification by the American Board of Internal Medicine in the subspecialty of infectious diseases. Applicants must have evidence of research productivity in the specified field.

Interested applicants should send curriculum vitae and three letters of recommendation to: **Keith Joiner, M.D., Chief, Infectious Diseases Section, Yale University School of Medicine, P.O. Box 3333, New Haven, CT 06510.** *Yale University is an Equal Opportunity/Affirmative Action Employer. Applications from women and minority groups are encouraged. Application deadline is 8 January 1990.*

ASSISTANT PROFESSOR IN MOLECULAR BIOLOGY

University of Arkansas for Medical Sciences at Little Rock seeks a candidate for the position of assistant professor in the Department of Obstetrics and Gynecology. Candidates for the position should have strong research training including postdoctoral experience, evidence of research productivity and independence, and some teaching experience. The successful candidate will join a team of clinicians and basic scientists with specific interests in basic and applied molecular genetics. This is a tenure-track position and the candidate will be expected to develop an independent, externally funded research program as well as participate in collaborative programs within the department.

Applications should include curriculum vitae, a statement of research interests (reprints or preprints), and the names, addresses, and telephone numbers of at least three references.

Applications should be sent prior to 1 February 1990 to: **Timothy J. O'Brien, University of Arkansas for Medical Sciences, Department of Obstetrics and Gynecology, 4301 West Markham, Slot 518, Little Rock, AR 72205.** *An Equal Opportunity/Affirmative Action Employer.*

Opportunities in Inflammation Research

Pfizer Central Research has immediate openings for research assistants to join a multidisciplinary project team engaged in research to discover novel therapies for pulmonary and inflammatory diseases.

Inflammation Scientist: You will join a well-established research team in the discovery of new treatments for inflammatory diseases such as rheumatoid arthritis. In this role you will develop and apply new *in vivo* models of such diseases. You should possess a BS or MS degree in a relevant field of biology and have hands-on experience with *in vivo* models of inflammation. Familiarity with eicosanoid and cytokine biology, as well as strong written/oral communications skills and computer experience, is desirable.

Pulmonary Research Assistant: You will evaluate the efficacy of potential new therapeutic agents in laboratory models of respiratory disease. You should possess a BS or MS degree in biology, physiology or pharmacology. Experience with *in vivo* experimentation is required and would ideally include measurement of pulmonary mechanics. However, individuals with more general *in vivo* research backgrounds are also encouraged to apply. An understanding of inflammatory cells, mediators and processes, as well as working knowledge of computers, is considered a plus.

Pfizer offers a stimulating scientific research environment with the opportunity to interact with scientists from several disciplines. In addition, Pfizer has a competitive compensation/benefit package and generous relocation assistance to our southeastern Connecticut shoreline community. Please send a resume, a letter of interest describing your research experience, and names of three references to: **Mrs. Lorraine C. Corr, Personnel Associate, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.** An equal opportunity employer.



SENIOR CLINICAL/ SCIENTIFIC WRITERS

Wyeth-Ayerst Research has immediate opportunities available in its Clinical R&D department in Radnor, PA for Senior Clinical/Scientific Writers.

The candidates we seek must have a minimum of BA/BS degree, preferably in the biological sciences, plus at least 5 years technical or medical writing experience, preferably in the pharmaceutical industry; MS/MA plus 4 years experience; or a Ph.D./Pharm.D. Demonstrated writing skills along with the ability to analyze and organize scientific data are most important.

The Senior Clinical/Scientific Writer will be involved with writing, editing, abstracting, proofreading and revising a wide variety of clinical documents for U.S. and International drug registration and marketing support. Responsibilities include organizing the presentation of clinical studies in New Drug applications (NDAs) and manuscripts and abstracts for publication.

We offer a competitive salary and extensive company benefits. For immediate consideration, please send resume, along with writing samples, and salary history to: **Wyeth-Ayerst Laboratories, Recruitment CR&D, Position #104, P.O. Box 8299, Philadelphia, PA 19101.** Equal Opportunity Employer, M/F/H/V responses encouraged.





The University of Manitoba
Department of Pharmacology and Therapeutics

FACULTY POSITIONS

Applications are invited to apply for two three-year term positions at the rank of Assistant Professor in the Department of Pharmacology and Therapeutics, Faculty of Medicine, University of Manitoba. Positions available immediately. Salary commensurate with experience and qualifications. Candidates should have M.D. or Ph.D. and a minimum of two years post-doctoral training. Expertise in liver and / or toxicology preferred, but candidates who may be complimentary to any of the research units will be considered: hepatic, cardiovascular-renal, neuropharmacology, clinical pharmacology and therapeutics. Must have a solid research background and be eligible to apply for extramural scholarship support. Must establish an independent research program. Teaching is mainly at the graduate student level. Both women and men are encouraged to apply. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents. Submit C.V., outline of research interests and the name, address and telephone numbers of three referees to: **Dr. W. Wayne Lutt, Professor and Head, Department of Pharmacology and Therapeutics, Faculty of Medicine, University of Manitoba, 770 Bannatyne Avenue, Winnipeg, Manitoba, R3E 0W3.**

Leonard S. Florsheim, Sr. Chair in Natural Sciences (Molecular Biology)

New College of the University of South Florida invites applications and nominations for an endowed professorship in the Natural Sciences beginning preferably August, 1990. The position is open to a Ph.D. Scientist with associate professor or professor rank with demonstrated background and ability in undergraduate education. Interest in teaching gifted undergraduates and an outstanding teaching record are assumed. Research interest should be within the field of molecular biology, which could include aspects of cellular biology, developmental biology, neurobiology, physiology or related areas of biology. A strong research program that involves undergraduate participants is expected.

New College faculty members teach two courses per term, offer tutorials, and supervise senior theses. There is also an Independent Study Period during the month of January. The Florsheim Professor will have discretion in selecting his/her courses. New College is a small, residential, highly selective honors college in the Florida State University System. There is an emphasis on small classes and individualized instruction. The Florsheim Professor is expected to become a permanent member of the New College Faculty; faculty responsibilities include participation in faculty governance as well as teaching and research. Compensation (salary, benefits, research support, travel) will be provided by a one-million dollar endowment.

Nominations and applications (including resume and three letters of recommendation) should be sent prior to January 24, 1990, to Dr. Richard Coe, Chair, Florsheim Search Committee, c/o Provost's Office, New College, University of South Florida, 5700 N. Tamiami Trail, Sarasota, FL 34243. New College, University of South Florida is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION

Department of Planetary Sciences/
Lunar and Planetary Laboratory
University of Arizona
**Basic Research in Planetary Science and
Extraterrestrial Resource Development**

The Department of Planetary Sciences and the Lunar and Planetary Laboratory expect to fill a regular tenure track faculty position, at the level of Assistant Professor, in an area of solar system basic research closely relevant to the development and utilization of extraterrestrial resources. This position is to be filled as part of a University effort in connection with a recently-funded NASA Engineering Research Center, devoted to the development of enabling technology for large-scale space activities through use of the material and energy resources of near-Earth space. The successful candidate will be expected to establish and maintain his or her own distinguished research program in basic planetary sciences and in a relevant area of space development, as well as participate in teaching and supervision of graduate research students. Salary level will be competitive and based on the successful candidate's qualifications and experience. To be considered for appointment, candidates must demonstrate clear promise of distinguished scientific achievement, leadership, and teaching ability in the planetary sciences.

Inquiries and applications, including a resume and bibliography as well as the names and addresses of at least four references, should be sent before January 15, 1990 to:

Professor Eugene H. Levy, Director
Lunar and Planetary Laboratory
University of Arizona
Tucson, Arizona 85721
(602) 621-6962

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

Gastrointestinal Diseases Research

The Procter & Gamble Company in Cincinnati, Ohio is seeking an entry-level Ph.D. physiologist to study the pathogenesis of gastritis and non-ulcer dyspepsia. The individual will work in a multidisciplinary gastrointestinal research group interested in understanding the mechanisms of pathogenesis and identifying methods of therapeutic intervention. Preference will be given to individuals familiar with *in vitro* and *in vivo* models to study mucus production. Good oral and written communication skills are required. Postdoctoral experience is desirable but not required.

Besides offering a stimulating environment for professional and personal growth, we offer a fringe benefit package (medical, dental, profit sharing) that ranks in the top 5% of U.S. corporations.

Candidates must be presently authorized to work in the U.S. on a full-time basis. Resumes, with a list of publications, should be sent to:

**Dr. T. J. Logan, Manager
GI Disease Research
The Procter & Gamble Company
Miami Valley Laboratories
P.O. Box 398707
Cincinnati, Ohio 45239-8707**

Procter & Gamble is an EQUAL OPPORTUNITY EMPLOYER.

Procter & Gamble

ASSISTANT AND ASSOCIATE PROFESSORSHIPS IN PATHOLOGY: CANCER RESEARCH

The Department of Pathology at the University of Tennessee Medical Center has recently made a new commitment to develop a strong academic program in cancer research. As part of this endeavor, several new positions are currently available. Applicants who have a strong interest and background in one or more of the following areas of investigation should apply:

1. Control of Cell Proliferation/Differentiation and Carcinogenesis
2. Mechanisms of Cancer Invasion and Metastasis
3. Molecular Virology and Molecular Genetics
4. Tumor Immunology

Individuals with MD, PhD, or MD/PhD degrees with a reputation for scientific productivity are encouraged to submit their curriculum vitae and bibliography with three letters of recommendation. Preference in the selection process will be given to those applicants with current extramural research support and those who are qualified to teach graduate courses in cell and molecular pathology especially relating to disease mechanisms.

Applications will be reviewed as of January 1, 1990 and thereafter until the positions are filled. Please send applications to:

**Dr. Robert E. Scott, Chairman
Pathology Search Committee
Department of Pathology
University of Tennessee
800 Madison Avenue, 576 BMH Main
Memphis, Tennessee 38163**

"The University of Tennessee is an equal employment opportunity/affirmative action/Title IX/Section 504 employer."

CHAIR

ENVIRONMENTAL TOXICOLOGY GRADUATE PROGRAM UNIVERSITY OF CALIFORNIA, RIVERSIDE

Nominations and applications are invited for the Chair of the Environmental Toxicology Graduate Program at the University of California, Riverside. Candidates are expected to have an internationally recognized research program utilizing biochemical, cellular and/or molecular approaches towards understanding fundamental mechanisms of toxic action in biological systems. In addition, the Chair must have demonstrated teaching excellence, administrative ability, leadership and enthusiasm to administer an interdepartmental program while continuing an active research program.

The Interdepartmental Environmental Toxicology Graduate Program is administered from the Department of Entomology and includes participating faculty from the Departments of Biochemistry, Botany and Plant Sciences, Chemistry, Nematology, Plant Pathology, Soil and Environmental Sciences, the Division of Biomedical Sciences and the Statewide Air Pollution Research Center. The current research strength of faculty in this Program is on the biochemical, cellular and molecular mechanisms of toxicity of agricultural chemicals and other environmental toxicants, and on the fate and transformation of these toxicants in the environment.

The appointment of the Chair, whose major research and teaching responsibility is to the Environmental Toxicology Graduate Program, will be at the tenured Full Professor level in the Department of Entomology. Teaching responsibilities will include graduate-level instruction and supervision of graduate students in the Environmental Toxicology Program. The appointees will also have the opportunity to be involved in other Interdepartmental Graduate Programs on campus.

Submit a detailed curriculum vitae, list of publications, representative reprints, a statement of research interests, and names and addresses of six referees to: **S. S. Gill, Search Committee Chairman, Department of Entomology and the Environmental Toxicology Graduate Program, University of California, Riverside, CA 92521.** Applications and nominations accepted until February 1, 1990. *The University of California is an Equal Opportunity/Affirmative Action Employer, and Minorities and Women are encouraged to apply.*

Biochemists/ Cell Biologists

Merck Sharp & Dohme Research Laboratories is currently offering excellent career opportunities for two BS/MS Scientists in the Department of Immunology Research. Research in this department focuses on the development of novel therapies for autoimmune diseases and transplantation through identification of unique biochemical targets in the lymphocyte.

The first successful candidate will participate in an ongoing program in lymphocyte signal transduction and in particular on the biochemical mechanism of action FK-506 and cyclosporin A. Relevant interest and at least two years experience in protein purification and molecular biology is preferred.

The second individual will join a newly established program to identify the molecular requirements of antigen presentation. Working with a team of cell biologists, molecular biologists and pharmacologists, the candidate should have two or more years of experience in protein purification, receptor binding assays and cell culture.

Merck Sharp & Dohme Research Laboratories are located in Rahway, New Jersey, approximately 25 miles from New York City. Our salaries, benefits, and growth potential are excellent. Interested candidates should submit their resume with the names of three references and salary requirements to: **Ms. Susan F. Glinka, Merck & Co., Inc., P.O. Box 2000, Rahway, NJ 07065.**

EQUAL OPPORTUNITY EMPLOYER



Merck & Co., Inc.

Position Announcement for AGRICULTURAL ECONOMIST and HEAD Social Sciences Division

The International Rice Research Institute, a member of the Consultative Group on International Agricultural Research (CGIAR), is a non-profit autonomous international organization engaged in technology research, training, and information exchange on rice. It is headquartered in the Philippines, but works closely with national agricultural research systems worldwide, especially in Asia. Social Sciences is one of IRRI's eight research divisions.

The Division Head will provide leadership and vision for the Social Sciences Division in support of the Institute's overall mandate. In particular, the Head will promote the integration of the social science perspective and research activities into the Institute's biological research, international and training programs while ensuring disciplinary excellence within multi-disciplinary research programs. The appointee will conduct independent and interdisciplinary research with other IRRI and national scientists.

Candidates must hold a PhD in agricultural economics or economics, a proven record of research on technology-related issues, capability for interdisciplinary research, demonstrated leadership and research management ability, and knowledge and experience of agriculture in developing countries, preferably in Asia.

Applications will be accepted up to 31 December 1989 or until a suitable candidate is selected. It is expected that the Division Head will take up his appointment by July 1990, although an earlier date would be preferred.

The Division Head will be located at the Institute's headquarters in Los Baños, Philippines. Salary and perquisites are internationally competitive.

Submit curriculum vitae, date of availability, and names and addresses of three references to Dr. H.G. Zandstra, Deputy Director General for Research, IRRI, P.O. Box 933, Manila, Philippines. FAX (63-2) 817-8470.

NATIONAL INSTITUTES OF HEALTH NATIONAL INSTITUTE OF MEDICAL SCIENCES BIOPHYSICS AND PHYSIOLOGICAL SCIENCES PROGRAM BRANCH

Director Biophysics and Physiological Sciences Program Branch

This is a civil service position in the Senior Executive Service (SES) with a salary range from \$68,700 to \$76,000 (may be subject to a 3.6% increase). Physicians may be eligible for a Physicians' Comparability Allowance up to \$20,000 per year.

Has overall responsibility for planning, organizing and administering a large (about \$133 million/year) program of grants, contracts, and both individual and institutional fellowship awards, designed to foster and support biomedical research and research training primarily in the field of biophysics but also in the physiological sciences.

Position information and qualification requirements may be obtained by contacting:

**Howard R. Chernoff, Personnel Officer
National Institute of General Medical Sciences
5333 Westbard Avenue, Room 9A-09
Bethesda, MD 20892
(301) 496-7161**



Application for Federal Employment (SF-171), CV and Bibliography must be submitted to above address and postmarked not later than January 16, 1990.

U.S. CITIZENSHIP REQUIRED
NIH IS AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR YALE UNIVERSITY

The Department of Pharmacology, Yale University School of Medicine, invites applications for tenure-track appointments at the assistant or associate professor level to begin in 1990 or 1991. The department currently has a strong program in neuroscience, biochemical and molecular pharmacology, and cancer chemotherapy. Candidates in these areas, as well as those that might bring new strengths to the department, are encouraged to apply. Candidates should have a Ph.D. or M.D. degree, postdoctoral experience, and a strong commitment to research. Applications submitted by 1 March 1990 should include curriculum vitae, description of research interests, and the names of at least three referees and be sent to: **Faculty Search Committee, Department of Pharmacology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510**. Yale University is an Equal Opportunity/Affirmative Action Employer.

SCRIPPS INSTITUTION OF OCEANOGRAPHY BIOLOGICAL OCEANOGRAPHY

Applications are invited for an **ASSISTANT, ASSOCIATE, OR FULL PROFESSOR/CURATOR** (tenure-track or tenured) position in marine planktonology; level and salary (University of California pay scale) commensurate with qualifications and experience. At the time of appointment successful candidates must hold a Ph.D. degree in a biological science, and must have a demonstrated excellence in independent research.

Qualifications include research and teaching interests in the ecology and evolution of planktonic organisms involving field and laboratory work, the utilization of plankton collections, and, preferably but not necessarily, expertise in the systematics and/or biogeography of one or more diverse and/or abundant planktonic organisms.

Candidates are expected to conduct an active research program supported by extramural funds, to be involved in graduate teaching and supervision of graduate students, and to supervise the maintenance, utilization, and expansion of the institution's extensive marine plankton collection. Candidates at the associate or full professorial level must show evidence of a strong research record. Assistant-level candidates will be evaluated on their potential, from their publication record and letters of recommendation, as appropriate to their level of experience.

Please send a letter of application including a description of research interests, list of publications, résumé of teaching experience, and interests in plankton collections, and names of at least five references to:

**Chairman, Biological Oceanography
Graduate Department, A-008
Scripps Institution of Oceanography
University of California, San Diego
La Jolla, CA 92093**

Closing date for applications is 15 January 1990. An Equal Opportunity/Affirmative Action Employer.

ASSOCIATE/ASSISTANT PROFESSOR BIOCHEMISTRY LOUISIANA STATE UNIVERSITY

Anticipated assistant or associate professor of biochemistry position (tenure track). Candidates should have a Ph.D. and postdoctoral research experience in biochemistry or molecular biology and will be expected to establish a vigorous, independent research program and participate in teaching at the graduate and advanced undergraduate level. The department is seeking the best available candidate. Facilities available within the department or College of Basic Sciences include: DNA synthesizer and sequencer, peptide sequencers and synthesizer, amino acid analyzer, macromolecular (VAX) computer facility with an Evans and Sutherland graphics workstation, TOF and FAB mass spectrometers, and 500-MHz high-resolution NMR. Salary and title will be commensurate with qualifications and experience. Send curriculum vitae, description of current and proposed research programs, and names and addresses of three references to:

**Search Committee Chairman
Department of Biochemistry
Louisiana State University
Baton Rouge, LA 70803**

Application deadline is 15 January 1990, or until a suitable candidate is identified.

An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

TEACHING POSITION, ADVANCED BIOLOGY. The Department of Biology, Emory University, invites applications for a teaching position at the **ASSISTANT PROFESSOR** rank for a non-tenure-track, 1-year term, with a possibility of renewal for up to 3 years. Responsibilities include teaching courses at an advanced level, which may include cell biology, genetics, and animal physiology, and participation in teaching a nonmajors course in introductory biology. The position will begin September 1990. Send curriculum vitae, a statement of your experience and interests in teaching, and have three letters of recommendation sent to: **Dr. Gray F. Crouse, Chairman, Department of Biology, Emory University, Atlanta, GA 30322**. Review of applications will begin in early January 1990. Emory is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE RESEARCH PROFESSORS. The Appalachian Environmental Laboratory of the University of Maryland's Center for Environmental and Estuarine Studies announces research faculty positions in tropical ecology. The successful candidates are expected to develop a strong grant program which will provide their salary support. Individuals with interest in developing the University of Maryland cooperative program with the Universidad Centroamericana in Nicaragua are encouraged to apply. Submit a letter of application, curriculum vitae, a statement of research interests, and names of four references to: **Dr. Kenneth R. McKaye, Appalachian Environmental Laboratory, University of Maryland, Frostburg, MD 21532**. Appointments may be made as of 15 December 1989, but applications will be accepted until 1 March 1990.

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

BIOCHEMISTRY/MICROBIOLOGY CELL BIOLOGY UNIVERSITY OF VICTORIA VICTORIA, B.C., CANADA

The Department of Biochemistry and Microbiology invites applications for a fulltime tenure-track appointment at the **ASSISTANT PROFESSOR** level. Applicants must have a Ph.D. and should have a minimum of 2 years of postdoctoral experience. Candidates are sought in any of the general areas of prokaryotic or eukaryotic molecular cell biology, molecular virology, molecular or cellular immunology, protein structure, or protein engineering. Exceptional applicants in other research areas are also encouraged to apply. The successful applicant will be expected to establish an independent research program and to teach at both undergraduate and graduate levels. The appointment starts on 1 July 1990. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

Applicants should send curriculum vitae, a summary of research interests, and have three referees send letters to:

**Dr. T. J. Trust, Chairman
Department of Biochemistry and Microbiology
University of Victoria
P.O. Box 1700
Victoria, B.C. V8W 2Y2, Canada**

The University of Victoria is committed to an employment equity program. Women are particularly encouraged to apply. Deadline for applications is 31 January 1990.

BIOLOGISTS. University of Wisconsin-Eau Claire (UWEC) invites applications for three tenure-track faculty positions at the **ASSISTANT PROFESSOR** level. Candidates should have a Ph.D. degree, have a strong commitment to undergraduate teaching, and develop an active research program. Successful candidates will be expected to teach in the freshman biology program as well as in advanced specialty courses.

AQUATIC BIOLOGIST-LIMNOLOGIST. Preference given to applicants with training in limnology.

CELL BIOLOGIST. Preference given to applicants with strong molecular training.

PLANT MORPHOLOGIST/ANATOMIST. Preference given to applicants with extensive training in SEM and TEM.

Indicate position desired. Send curriculum vitae, statement of research interests, transcripts of academic work, and three letters of recommendation to: **Chair (appropriate search committee), Department of Biology, University of Wisconsin-Eau Claire, Eau Claire, WI 54702-4004**, by 10 January 1990. UWEC is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

CELL BIOLOGY DEVELOPMENTAL NEUROBIOLOGY TWO SENIOR LEVEL FACULTY POSITIONS DEPARTMENT OF BIOLOGY UNIVERSITY OF CALIFORNIA RIVERSIDE

The Department of Biology, University of California, Riverside, invites applications for two openings at the senior level. One is in cell biology, at the **ASSOCIATE OR FULL PROFESSOR** level; the other is in developmental neurobiology at the **FULL PROFESSOR** level. The appointments will be effective 1 July 1990. Applicants should have an active research program and an established reputation with a proven record of competing successfully for extramural funding. Demonstrated interest and ability in teaching is sought. Salary will be competitive and will depend on qualifications and experience. Modern research space and access to major equipment such as TEM, SEM, and staffed biotechnology and analytical chemistry instrumentation facilities are available.

CELL BIOLOGY. We are interested in all areas of research in cell biology. Preference will be given to scientists applying modern molecular approaches to the study of the cell and with interests in: cell/cell interactions, protein sorting and assembly, cytoskeletal structure and function, or extracellular matrix. Applications should be received by 15 January 1990. Please send curriculum vitae, summary of research and teaching interests, and arrange to have three to five referees send letters to: **Cell and Molecular Biology Search Committee, Department of Biology, University of California, Riverside, CA 92521**.

DEVELOPMENTAL NEUROBIOLOGY. Acceptable areas of research include, but are not limited to, gene regulation and expression during neural development, neural differentiation and the development of integrative mechanisms, synaptogenesis, regeneration, mechanisms of learning and memory, and analysis of neural connectivity in response to environmental conditions, hormones, or other factors. The successful candidate will be expected to assume a leadership role in the interdepartmental neurobiology program. Applications should be received by 15 January 1990. Please send curriculum vitae, summary of research and teaching interests, and arrange to have three to five referees send letters to: **Developmental Neurobiology Search Committee, Department of Biology, University of California, Riverside, CA 92521**.

The University of California is an Equal Opportunity/Affirmative Action Employer and minority and female candidates are encouraged to apply.

SENIOR INSTRUCTOR

A research position is immediately available to study oncogene rearrangements, mutation, deletion, and amplification in human cancer. Applicants must have an M.D. or a Ph.D. in biological sciences with a minimum of 3 years of postdoctoral or appropriate experience in cancer research. Expertise in advanced techniques of molecular biology required, including gene cloning, sequencing, genomic and cDNA libraries, RNA analysis, the PCR technique, and pulsed-field electrophoresis. Experience in cytogenetics is preferred. Salary for the position is \$35,000 per year plus benefits. Please submit résumé or curriculum vitae to: **The Philadelphia Job Bank, Job Order Number 4304730, 444 North 3rd Street, 3rd Floor, Philadelphia, PA 19123**. Affirmative Action/Equal Opportunity Employer.

SENIOR INVESTIGATOR PHYSIOLOGIST, AMYLIN CORPORATION, SAN DIEGO

Amylin Corporation is an emerging biomedical company based upon the recent discovery of the pancreatic hormone amylin and its significance in diabetes mellitus. The Department of Animal Physiology is seeking an investigator with a broad range of skills which would ideally include expertise in the following fields: small animal surgery, isolated organ perfusion, pharmacology, metabolism. Applicants must hold Ph.D. or D.V.M. degree. Competitive salary and benefits. The position is available immediately. Send curriculum vitae and names of three references to: **Dr. Andrew A. Young, M.D., Ph.D., Director of Animal Physiology, Amylin Corporation, 9373 Towne Centre Drive, San Diego, CA 92121**.

POSITIONS OPEN

CELL BIOLOGIST

The Department of Biomedical Anatomy, University of Minnesota, Duluth, School of Medicine, is seeking applications from outstanding individuals to fill a cell biologist position at the **ASSISTANT PROFESSOR-SHIP** level. The position is a regular, 12-month, tenure-track position. The successful applicant will be expected to participate in the teaching of microscopic anatomy and/or developmental anatomy to first-year medical students. In addition, the successful candidate will have the opportunity to participate in both graduate and undergraduate education in the area of cell biology. The anticipated start-up date is 1 July 1990 and the deadline for receipt of applications is 31 January 1990. The successful candidate will be expected to develop a vigorous, productive, and extramurally funded research program in her/his area of cell biology expertise. Excellent opportunities exist at the School of Medicine for research collaboration. The qualified applicant must have a Ph.D. and/or M.D. with a clear emphasis on research in some area of cell biology. In addition, two or more years of postdoctoral experience in cell biology is desirable.

Interested individuals should submit an application (including curriculum vitae) and have three letters of recommendation sent directly to: **Stephen Downing, Ph.D., Chair, Search Committee, Department of Biomedical Anatomy, University of Minnesota, Duluth School of Medicine, 10 University Drive, Duluth, MN 55812.**

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

CHEMISTRY DEPARTMENT HEAD UNIVERSITY OF NORTH CAROLINA AT GREENSBORO (UNCG)

Applications are invited for the position of professor with an initial term as head of chemistry at this 12,000-student, doctorate-granting institution in the UNC system. The head will lead the department during a time of campus-wide science enhancement, including a search to fill an endowed chair in the department in a biochemical area and cooperative efforts with other science departments having chemical or biochemical interests. Candidates should have a doctorate in some area of chemistry; administrative and leadership skills; a record of accomplishment in teaching, research, and grantsmanship; and the experience and desire to strengthen the department's research program, especially in biochemistry. The department has 12 faculty, 80 undergraduate and 20 graduate students, and offers the B.A., B.S. (ACS-certified), M.S., and M.Ed. degree. Position available August 1990. Applications are invited until 15 January 1990. Send résumé and arrange for three letters of reference to be sent to: **Dr. William Bates, College of Arts and Sciences, University of North Carolina at Greensboro, Greensboro, NC 27412.** Minorities and women are encouraged to apply. UNCG is an Affirmative Action/Equal Opportunity Employer.

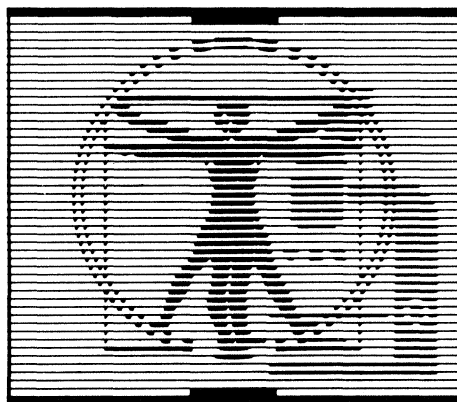
NATIONAL SCIENCE FOUNDATION (NSF)

NSF's Division of Astronomical Sciences is seeking qualified applicants for the position of **PROGRAM DIRECTOR, Stars and Stellar Evolution Program**. The position will be filled on a 1- or 2-year visiting scientist or temporary basis starting January 1990.

The visiting scientist receives a leave of absence from his/her employer and salary is set in accordance with NSF's Visiting Scientist Program. The salary range is from \$48,592 to \$75,473. Applicants should have a Ph.D. in astronomy or astrophysics or equivalent experience. In addition, 6 or more years of successful scientific research experience beyond the Ph.D. is required. Administrative experience is also desirable. Program directors are responsible for the planning and administration of the program within the framework of legislation, agency policies, missions, objectives, and resources, and serves as spokesperson for the program with regard to the scientific community. Responsibilities include the review, recommendation, and processing of proposals for grants in astronomy research and budget preparation.

Applicants should submit an SF-171, Application for Federal Employment, or résumé to: **National Science Foundation, 1800 G Street, NW, Room 208, Washington, DC 20550, Attention: Catherine Handle.** For further information, call 202-357-9681.

For technical information, please contact: **Laura P. Bautz, Division of Astronomical Sciences, 202-357-9488.** Hearing impaired individuals should call 202-357-9529. NSF is an Equal Opportunity Employer.



SCIENTIFIC DIRECTOR SUPERCOMPUTER FACILITY

The National Cancer Institute's supercomputer facility is a totally integrated Class VI computer center devoted to problems in biomedical research and is managed by Program Resources, Inc. at the Frederick Cancer Research Facility in Frederick, Maryland. Users have convenient access to a CRAY X/MP 24 supercomputer, VAX mini-computers (8600 and 11/785), SUN, Apollo, Silicon Graphics, Evans and Sutherland graphics workstations, and a variety of microcomputers all networked by an Ethernet local area network. High speed communications networks extend user access to other research organizations and universities through the nationwide internets (ARPANET, NSFNET, BITNET). Research applications include Sequence Analysis, Structure Prediction, Molecular Graphics, Image Processing, Structure Determination, Crystallography, MRI, Statistical Analysis, and Data Base Analysis.

The candidate we seek will be responsible for directing and coordinating the scientific programs of the supercomputer facility which has a broad user

base focusing on contemporary problems in biomedical research with special focus on the NCI's mission in Cancer and AIDS research.

This facility is being considered for upgrade, thus the Scientific Director will have a major role in the establishment of design and instrumentation upgrades and will have an opportunity to carry out research consistent with broad program goals. The Scientific Director will be supported by an outstanding incumbent technical and administrative staff of 29 employees.

Ph.D. or M.D. degree with demonstrated expertise in drug design; 8-10 years of

related experience and a national reputation directing scientific programs is required along with detailed knowledge and direct experience with supercomputer hardware and technology.

PRI offers a salary commensurate with credentials and a comprehensive company benefits program including a 401(k) Retirement Plan and relocation assistance.

For consideration please send resume, references, publications list, and salary requirements on behalf of the Supercomputer Scientific Director Search Committee to:

**Robert E. Hardisty
Personnel Manager
PROGRAM RESOURCES, INC.
NCI-FCRF
P.O. Box B
Frederick, MD 21701**



**PROGRAM
RESOURCES,
INC.**

Equal Opportunity Employer, M/F.

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES

University of California, Davis

Inquiries are invited from qualified applicants for faculty positions (tenure track) available in these areas. Positions available July 1, 1990.

ASSISTANT PROFESSOR OF HUMAN DEVELOPMENT. Two positions: research, teaching, and advising in the area of adolescence and young adulthood; research, teaching, and advising in the area of adulthood and aging. Apply to Chair, Unit on Human Development, Department of Applied Behavioral Sciences by February 1, 1990.

ASSISTANT OR ASSOCIATE PROFESSOR. Research in eukaryotic molecular genetics. Must have demonstrated excellence in research; willing to teach advanced course in specialty and contribute to undergraduate teaching and advising. Apply to Dr. J. Boyd, Department of Genetics, by January 1, 1990.

ASSISTANT, ASSOCIATE, OR FULL PROFESSOR. Demonstrated excellence in microbiological research. Teaching in the area of prokaryotic physiology and genetics. Apply to Dr. J. C. Meeks, Chair Physiology/Genetics Search Committee, Department of Microbiology by February 1, 1990.

ASSISTANT PROFESSOR, DESIGN. Research related to designing protective and environmentally adaptive clothing in relation to results of human performance tests. Strong potential for interdisciplinary collaboration. Apply to Victoria Rivers, Department of Environmental Design, by January 30, 1990.

ASSISTANT OR ASSOCIATE POMOLOGIST/COOPERATIVE EXTENSION SPECIALIST. Postharvest research (40%) and extension (60%) at the Kearney Agricultural Center, Parlier, California. Apply to: F. Gordon Mitchell, Search Committee Chair, Department of Pomology, by February 16, 1990.

ASSISTANT PROFESSOR/ASSISTANT NUTRITIONIST. Research and teaching in the area of ruminant nutrition and range science. Apply to Dr. R. L. Baldwin, Department of Animal Science by April 15, 1990.

ASSISTANT PROFESSOR and ASSISTANT/ASSOCIATE/FULL PROFESSOR. Two positions: research, teaching, and advising in the area of developmental nutrition; research, teaching, and advising in the area of dietetics. Apply to Carl L. Keen, Department of Nutrition by March 15, 1990.

ASSISTANT PROFESSOR. Natural Product Chemist related to grape and wine trace component analysis and methodology development. Apply to C. S. Ough, Department of Viticulture and Enology by February 28, 1990.

ASSISTANT ENTOMOLOGIST/COOPERATIVE EXTENSION SPECIALIST. Field or vegetable cropping systems entomology Cooperative Extension Specialist (70%) and research (30%). Apply to Dr. Frank G. Zalom, Chair of Search Committee, Department of Entomology by January 12, 1990.

ASSISTANT PROFESSOR. Entomology teaching and research emphasizing mission-oriented arthropod natural enemies in field or vegetable crops. Apply to Dr. Michael P. Parrella, Chair of Search Committee, Department of Entomology, by February 9, 1990.

ASSISTANT PROFESSOR. Study occurrence, fate, and ecological effects of primarily inorganic or geochemical toxicants. Examples include exposure assessment and hazards from toxic spills/wastes. Apply to Chair of Search Committee, Department of Environmental Toxicology, by February 15, 1990.

These positions are to be filled at the Assistant Professor 11-month salary level (unless other rank is indicated above). The positions have responsibilities for teaching, advising and research (in the Agricultural Experiment Station). Candidates must have a Ph.D.* in an appropriate field and teaching and research experience. Applicants should submit resume, transcripts (if within five years of graduation), statement of research and teaching experience, list and reprints of publications*, and the names and addresses of at least three persons familiar with the applicant's qualifications, to individual and department as noted for position (department name), University of California, Davis, CA 95616. Please indicate the position(s) in which you are interested. The completed application must be received by date indicated for each position. **The University of California is an Affirmative Action/Equal Opportunity Employer.**

*For the Design position, an MFA is the appropriate terminal degree, and candidates must submit a portfolio of 20 slides of creative work in addition to, or in place of, publications.

Director, Medical Biotechnology Center of the University of Maryland

A search is being initiated for the Director of the Medical Biotechnology Center (MBC). The Center was established by the University of Maryland to develop and coordinate scientific strengths in specific areas of biotechnology. Located in Baltimore, Maryland, the goal of the MBC is to bring the University and the State to a preeminent position of leadership in medical biotechnology. The Baltimore-Washington region is a national focus for high-technology industry and biomedical research.

The MBC is a component of the Maryland Biotechnology Institute, which includes the Center for Advanced Research in Biotechnology, the Center for Agricultural Biotechnology, the Center of Marine Biotechnology, and the Center for Public Issues in Biotechnology.

The Director will be responsible for leading the development of the Medical Biotechnology Center, including faculty recruitment, program development, technology transfer development, and planning coordinating construction of a major biotechnology facility. The Director must be a nationally recognized leader in biomedical research or medical biotechnology and should have considerable experience in research administration. Compensation and benefits are commensurate with the position and with the experience of the candidate.

Please submit a letter of intent, a curriculum vitae, and names and addresses of three references by January 1, 1990 to:

Stephen R. Max, Ph.D.
Associate Vice President for Research
Chairman, Medical Biotechnology
Center Search Committee
The University of Maryland Graduate School
Room 259 Howard Hall
660 W. Redwood Street
Baltimore, MD 21201

The University of Maryland is an equal opportunity/
affirmative action employer.

GEO-CENTERS, INC., one of the fastest growing high-tech firms in America, specializing in R&D work for optical and materials sciences, is seeking two individuals:

SENIOR SCIENTIST – Code 2154 This position will involve collection and analysis of protein single-crystal diffraction data. If you possess a Ph.D. Degree; are experienced in crystal structure analysis; preferably of macromolecules; have an interest in protein structure and function, this position is for you! Hands on experience with preparation of crystals suitable for diffraction experiments also desirable.

SCIENTIST – Code 2153 Entry-level Biochemist/Chemist needed to assist Senior Research Scientists in protein purification and crystallization experiments, using both manual and robotic methods. B.S. Degree in biochemistry/chemistry or equivalent experience required. Laboratory experience in microanalysis techniques of biochemistry desirable.

We offer competitive salaries, relocation assistance, and outstanding benefits. Please forward resume, with salary history to: GEO-CENTERS, INC., 10903 Indian Head Highway, Ft. Washington, MD 20744, Attn: Deborah Hall-Greene/ Appropriate Code #. **GEO-CENTERS, INC., is an Equal Opportunity/Affirmative Action Employer.**



MICROBIOLOGY/IMMUNOLOGY ASSISTANT/ASSOCIATE PROFESSORS

**Department of Microbiology and Immunology
The Medical College of Pennsylvania**

Two tenure-track positions are being sought. Individuals in these positions will be encouraged to collaborate in interdisciplinary projects in the newly designated centers of research focus for MCP in cancer, geriatrics atherosclerosis, neurodevelopment, perinatal diseases and immunotherapeutics. Specific areas of interest are molecular or developmental immunology/biology (cytokines, tumor metastasis and cell adhesion, developmental immunology, macrophage biology in atherosclerosis, immune mediated diseases, psychoneuroimmunology), or molecular microbiology and immunotherapy of opportunistic infections. Postdoctoral experience required. Applicants must have a commitment to teaching undergraduate medical students and graduate students. Candidates for assistant professor should have a demonstrated record of research productivity and strong potential to develop a funded research program. Candidates for associate professor should have well established, independently funded research programs, an established publication record, and several years of medical/graduate school teaching experience. Applicants should have a Ph.D., D.V.M., D.Sc. or M.D. degree, and must provide curriculum vitae, statement of research interests including funding history, statement of teaching interests and experience, and the names, addresses and telephone numbers of three referees to: Dr. Page S. Morahan, Professor and Chairman, Department of Microbiology and Immunology, The Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, PA 19129. Deadline for receipt of applications is 22 December 1989 or until a suitable candidate is found. Affirmative Action/Equal Opportunity Employer.

NATIONAL INSTITUTE OF MENTAL HEALTH ALCOHOL, DRUG ABUSE AND MENTAL HEALTH ADMINISTRATION U.S. PUBLIC HEALTH SERVICE

SUPERVISORY HEALTH SCIENTIST ADMINISTRATORS

The Division of Extramural Activities (DEA) has immediate openings for two supervisory health scientist administrators: Chief, Neuroscience and Behavioral Science Review Branch, and Chief, Clinical, Epidemiological and Services Review Branch. The Branches have responsibility for administering the initial review committees of grant applications, contract concepts and proposals, and cooperative agreement proposals for the National Institute of Mental Health in the subject areas of basic, applied, social, clinical and services research and research training, research scientist development, and clinical manpower and services development. The Branch Chiefs will be responsible for the scientific and administrative management of the respective branches, including supervision of professional and technical personnel, and may lead special review committees. They will establish and maintain ties in the scientific community through visits to various research facilities, and by attending and making presentations at meetings and conferences, in order to remain knowledgeable of ongoing research and to provide information on the ADAMHA/NIMH review procedures. They will serve as advisors to the Director, DEA, developing and recommending Division policy and practices governing the technical review process.

Applicants should possess an M.D. or a Ph.D. degree, or equivalent training, in a discipline relevant to the research areas reviewed by the respective branches, such as basic biological, behavioral neurosciences, clinical, epidemiological, or services research. In addition, applicants should have experience in administration of biomedical, behavioral or services research, and/or extensive experience in the peer review process. Each position may be filled through the Civil Service or through the Commissioned Corps of the Public Health Service. Minorities and women are invited to apply. The salary range for these GS-15 positions is from \$57,158 to \$74,303 per annum. Benefits include a retirement plan, health and life insurance, and sick and annual leave. Relocation expenses may be paid. The duty station is Rockville, Maryland. U.S. citizenship is required.

Submit Applications for Federal Employment (SF-171) and Curriculum Vitae to: Ms. Malca Giblin, Division of Personnel Management, Room 15C-12, 5600 Fishers Lane, Rockville, Maryland, 20857, or call (301) 443-5407. Applications must be postmarked no later than January 31, 1990.

ADAMHA IS AN EQUAL OPPORTUNITY EMPLOYER

University of Utrecht

FACULTY OF VETERINARY MEDICINE

The Faculty of Veterinary Medicine of the University of Utrecht, The Netherlands, invites applicants for the position of

vac.nr.
70035

Full Professor in Parasitology

Applicants are expected to meet the following requirements:

- general and specific knowledge of parasitic infections and diseases in domestic animals, including parasitic zoonoses;
- expertise in molecular-biological, biochemical and/or immunological aspects of host-parasite relationships;
- experience in research management;
- experience in teaching;
- willingness to collaborate with other disciplines;
- willingness to serve on faculty boards and committees.

Candidates should:

- be a graduated veterinarian, medical doctor or (molecular)biologist;
- possess a Ph.D. or equivalent academic degree;
- be specialized in parasitology as evidenced by publications of high standard;
- be willing to learn Dutch within a reasonable period of time.

Further information is available on request.

The salary will be determined according to the experience of the applicant.

Application, accompanied by a full curriculum vitae and a list of publications, or suggestions of suitable candidates, should be confidentially sent to:

Prof. dr. Simon G. van den Bergh, dean, Faculty of Veterinary Medicine, P.O. Box 80.163, 3508 TD Utrecht, the Netherlands.

POSITIONS OPEN

SIMON FRASER UNIVERSITY CHAIR OF THE DEPARTMENT OF BIOLOGICAL SCIENCES

Applications and nominations are sought for the position of **CHAIR** of the Department of Biological Sciences at Simon Fraser University (SFU). The department has 35 faculty members whose teaching and research interests cover all the modern areas of biological sciences. There is a graduate enrollment of some 160 students, and external research grant support in 1988-89 was \$2.4 million. A departmental chair appointment is for up to 5 years and is renewable; the salary is negotiable. The appointment would normally carry tenure. Candidates should have an excellent record in research and a demonstrated ability as an academic leader.

Applications or nominations should be forwarded by 15 January 1990 to: **The Dean of Science, Simon Fraser University, Burnaby, B.C. V5A 1S6.**

This advertisement is directed to people who are eligible for employment in Canada at the time of application. SFU offers Equal Employment Opportunities to qualified applicants.

LOUISIANA STATE UNIVERSITY (LSU) MEDICAL CENTER VICE CHANCELLOR FOR ACADEMIC AFFAIRS AND DEAN OF THE GRADUATE SCHOOL

As a member of the senior executive staff of LSU Medical Center, this full-time senior official reports directly to the chancellor. As vice chancellor, this person is responsible, in a broad sense, for providing professional counsel and advice, exercising leadership and guidance, developing long-range goals and objectives, formulating and administering policies, and coordinating the academic affairs of all of the professional schools in the medical center.

As dean of the graduate school, this individual is responsible for the development and enhancement of policies and programs and the coordination and direction of all academic matters, including the curriculum, under the purview of the chairperson within the Graduate School.

Candidates for the position must possess at least a doctoral degree in one of the basic health sciences; have a minimum of 5 years of academic administrative experience in a university health science center; demonstrate a strong commitment to academic excellence through their background and experience in original writing, research, and education of graduate students in the basic health sciences; and possess effective oral and written communication skills.

Academic rank and salary commensurate with qualifications.

Nominations and applications, including curriculum vitae and the names of three references, should be forwarded not later than 1 February 1990 to:

Dr. Jack H. Rayson
Search Committee Chairman
1100 Florida Avenue
New Orleans, LA 70119

LSU Medical Center is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION IN BIOLOGICAL SCIENCES

PLANT ECOLOGIST. Applications are invited for an aquatic or terrestrial plant ecologist tenure-track position, pending availability of funds; rank and salary open. Success in extramural funding, strong research program including graduate training, and commitment to undergraduate and graduate teaching expected. Successful applicant will be knowledgeable and appreciative of the diversity of plants, and be interested in collaborative research with colleagues.

The University of North Texas (UNT) is an emerging national research institution in the rapidly expanding Dallas-Fort Worth metropolitan area with over 700 regular faculty and over 26,000 students (one-fourth graduate students). Candidates should send detailed résumés, reprints, a statement of research objectives and aspirations, and the names, addresses, and telephone numbers of five references to: **Chairman, Plant Ecologist Search Committee, Department of Biological Sciences, University of North Texas, P.O. Box 5218, Denton, TX 76203.** Applications will be received until 1 March 1990. UNT is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

CHAIR, DEPARTMENT OF BIOLOGY CLARKSON UNIVERSITY

Nominations and applications are invited for this tenure-track faculty position. We are seeking candidates with an outstanding record of scholarly and academic achievement to provide strong leadership in the continuing growth and development of the Department of Biology. The department is a growing undergraduate major with young faculty in genetics, molecular biology, neurobiology, and physiological ecology. The chair will play an important role in assisting faculty in developing successfully balanced research and teaching activities, hiring new faculty, and developing undergraduate and graduate programs. The university, a private institution emphasizing engineering, science, and management, is in a college-town environment with three nearby colleges. Applicants should submit curriculum vitae, statement of administrative goals and objectives, and names of four references to: **A. E. Linkins, Dean of Science, Clarkson University, Potsdam, NY 13676.** Applications review will begin January 1990 and continue until position is filled. *Clarkson University is an Equal Opportunity/Affirmative Action Employer.*

CHAIRPERSON DEPARTMENT OF ANATOMY MARSHALL UNIVERSITY SCHOOL OF MEDICINE

The Marshall University School of Medicine is inviting applications or nominations for the position of chairperson, Department of Anatomy, available on or before 1 July 1990. Candidates must possess a Ph.D. and/or M.D. degree and have demonstrated experience in administration, teaching of medical/graduate students, and research. Applications or nominations should be received by 1 February 1990, and should include curriculum vitae and names with addresses of three references to:

Dr. Howard Aulick
Anatomy Chairperson Search Committee
Marshall University School of Medicine
Huntington, WV 25755-9340

An Equal Opportunity/Affirmative Action Employer.

CHAIRPERSON AND PHYSICIAN-IN-CHIEF DEPARTMENT OF MEDICINE NEW YORK HOSPITAL CORNELL MEDICAL CENTER

The New York Hospital-Cornell Medical Center seeks a distinguished physician for appointment as professor and chairperson, Department of Medicine, Cornell University Medical College, and as physician-in-chief, the New York Hospital. Candidates must present evidence of experience and accomplishment in teaching, research, clinical service, and administration. Send current curriculum vitae which includes a list of publications to:

Dr. William Ledger, Chairman
Medicine Search Committee
Room M-036
Cornell University Medical College
1300 York Avenue
New York, NY 10021

An Equal Opportunity Employer.

DIRECTOR OF TOXICOLOGY AND CHEMISTRY

CBC is a dynamic, growth-oriented medical laboratory with a home base located along the bountiful shoreline of western Michigan. We are committed to the "pursuit of excellence" not only in our business endeavors, but in our employees as well. We are currently searching for a director of toxicology and chemistry to fill a critically vital position in our Grand Rapids laboratory. Candidates must be NIDA-qualified Ph.D.'s. Excellent compensation, fully paid benefit package.

This is an exciting opportunity to live and work in beautiful western Michigan. Join our team of professionals and watch us as we grow and achieve our pursuit of excellence.

CBC Laboratory Service, Inc.
2740 28th Street SW
Grand Rapids, MI 49509
Attention: Personnel Department

POSITIONS OPEN

ASSOCIATE DEAN FOR RESEARCH, FORESTRY. Leads and coordinates college's \$10 million research program; aids in policy-making, budgeting; serves as grants, contracts officer; heads publications, information programs. Qualifications: Ph.D. in natural resources, department head or equivalent experience, science leadership in discipline. Application deadline: 19 January 1990; position available: 1 March 1990. Send application, curriculum vitae, and names, addresses, and phone numbers of three references to: **Dr. William Atkinson, Chair, Search Committee, College of Forestry, Oregon State University (OSU), Corvallis, OR 97331-5704.** OSU is an Equal Opportunity/Affirmative Action Employer and responsive to needs of dual-career couples.

STANFORD UNIVERSITY FACULTY POSITION IN DEVICE PHYSICS

The Departments of Applied Physics and Electrical Engineering at Stanford University seek candidates for a joint faculty appointment in the general area of experimental device physics. We seek applicants whose primary motivation is the invention of useful devices and technologies that are based on ideas at the forefront of physical understanding, coming from research areas such as quantum electronics, artificial materials, and tunneling microscopy. The candidate should have a strong interest in teaching and an interest in participating in the activities of the engineering and applied physics communities. The position could be at the junior or senior level.

Interested applicants should send curriculum vitae, list of publications, and the names of three suitable references by 28 February 1990 to: **Professor W. A. Harrison, Department of Applied Physics, Stanford University, Stanford, CA 94305-4090.**

Stanford University is an Equal Opportunity Employer and welcomes nominations of and applications from women and minority group members.

ENVIRONMENTAL GEOTECHNOLOGY FACULTY POSITION

The Massachusetts Institute of Technology's Department of Civil Engineering invites applications for a tenure-track faculty appointment, at the level of **ASSISTANT OR ASSOCIATE PROFESSOR**, in the area of environmental geotechnology, which encompasses the geotechnical engineering aspects of man-made and natural hazards, including remediation of chemical and other hazardous wastes. Candidates should have a solid background in geochemistry, environmental chemistry, or clay mineralogy and also in geotechnical engineering. We seek a person with a strong interest in laboratory and field experimentation and with an orientation toward both research and engineering applications; strength in analysis is required but should not be a primary focus.

Applications should be sent to: **Professor Robert V. Whitman, Room 1-342, Department of Civil Engineering, Massachusetts Institute of Technology, Cambridge, MA 02139-4307.** All applications must be received by 15 February 1990. MIT is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION, FRESHWATER AND ESTUARINE FISHES. The Department of Biology of Tulane University invites applications to fill a tenure-track position, contingent upon administrative approval, beginning fall 1990, in the biology of freshwater and estuarine fishes at the **SENIOR ASSISTANT OR ASSOCIATE PROFESSOR** level. This person's research interest should exemplify the power of using biochemical and/or molecular techniques as applied to fish systems to explore contemporary questions in organismal, ecological, or evolutionary biology. We are especially interested in someone who can capitalize on, and be willing to curate, one of the major freshwater-estuarine fish collections in the United States. Among the responsibilities of the position will be securing extramural funding for the support of the collection. Ph.D. required. Applicants should submit curriculum vitae, statement of research and teaching interests including how the fish collection might be used, reprints, and the names and addresses of at least three references before 31 December 1989 to: **Chairman, Ichthyology Search Committee, Department of Biology, Tulane University, New Orleans, LA 70118-5889.** Tulane University is an Affirmative Action/Equal Opportunity Employer, and applications from qualified women and minority group members are especially encouraged.



RESEARCH OPPORTUNITIES

In Agricultural Biotechnology

Dow Elanco and Company is a newly formed agricultural chemical company. Created as a joint venture between The Dow Chemical Company and Eli Lilly and Company, Dow Elanco is now the largest agricultural chemical company in the U.S.

Expansion of research efforts within the new company has created several new research positions to be filled by outstanding scientists interested in the challenges and rewarding career opportunities made possible by the formation of a company of this magnitude. Although these positions will be located initially at research facilities in Midland, Michigan, they will relocate to a major new research complex to be completed in 1992 in Indianapolis, Indiana.

Entry-level positions are currently available in the Agricultural Biotechnology Department in the following areas:

PLANT MOLECULAR BIOLOGY/GENE EXPRESSION

We are seeking a Ph.D. level scientist in plant molecular biology to join a highly focused plant transformation team. Postdoctoral experience is preferred, with an emphasis in gene expression analysis. Expertise in RNA analysis, such as S1 and primer extension mapping, is highly desirable. Familiarity with plant transformation systems would be beneficial. The successful candidate will provide expertise in analysis of foreign gene expression in plants.

INSECT CELL BIOLOGY

We are seeking a Ph.D. level scientist in insect cell biology to join a multidisciplinary group developing novel insect control strategies. Postdoctoral experience is preferred. The successful candidate should have a strong, broad-based background in one or more of the following areas related to insects: cell culture, physiology/biochemistry, viruses, membrane biology, gut physiology. The successful candidate will be responsible for developing and analyzing the effects of novel insect control agents *in vitro* and *in vivo*.

PLANT CELL BIOLOGY

This position requires a BS or MS level biologist with at least 1-3 years experience in plant cell biology and a strong background in biochemistry and molecular biology. Experience in enzyme assays, DNA analysis and familiarity with plant gene transfer systems is preferred. The successful candidate will address research problems involving protoplast mediated gene transfer.

ANIMAL CELL BIOLOGY

This position requires a BS or MS level biologist with at least 1-3 years experience in animal cell biology and a strong background in biochemistry and molecular biology. Training in entomology and insect cell biology is highly desirable. Experience in establishing novel insect and/or mouse hybridoma cell lines is preferred. The successful candidate will address research problems in the use of immunological probes in insect systems.

MOLECULAR BIOLOGY

This position requires a BS or MS level biochemist, molecular biologist or microbiologist with at least 1-3 years experience in recombinant DNA technology. A strong background in chemistry would be valuable. The successful candidate will address research problems in the isolation and characterization of plant regulatory DNA sequences.

BIOCHEMISTRY/IMMUNOLOGY

This position requires a BS or MS level biologist, biochemist, or chemist with at least 1-3 years experience in hybridoma technology and immunoassays. Additional experience in protein characterization and ligand binding assays is preferred. The successful candidate will be involved in the discovery of bioactive molecules.

All candidates should possess strong communication skills and an ability to perform in a multidisciplinary team setting. Dow Elanco offers a stimulating, interactive goal-oriented research environment. A competitive salary and benefits package will be provided. Interested applicants should send their resumes to: **Technical Recruiting, Department DE-1, Dow Elanco and Company, 1801 Building, Midland, MI 48674.** An Equal Opportunity Employer M/F/H/V.

DOW ELANCO AND COMPANY

CELL BIOLOGY

Viagene, Inc. is a rapidly expanding biopharmaceutical company developing and commercializing DNA-based therapeutic products for the treatment of viral, malignant and other gene-regulated diseases.

We are currently seeking talented, self-motivated individuals to join our process and product development team.

RESEARCH SCIENTISTS

These scientists will have the opportunity to maximize viral production from our packaging cell lines. A key responsibility includes defining the most productive method to grow retroviral vectors in terms of efficiency and cost. Ideal candidates will possess a Ph.D. in cellular biology or related field and have a minimum of 2 years relevant postdoctoral training or equivalent industrial experience. Demonstrated excellence in mammalian tissue culture techniques is required. Familiarity with the development of defined medias and primary cell tissue culture is desirable.

Viagene offers a stimulating and challenging research environment as well as highly competitive salaries, comprehensive benefit packages and attractive equity positions. Interested applicants should send curriculum vitae/resume with a short summary of research experience to Viagene, Inc., Human Resources Department, 11075 Roselle Street, San Diego, CA 92121. We are an equal opportunity employer.



Viagene, Inc.

MOLECULAR BIOPHYSICAL CHEMISTRY FACULTY POSITIONS, THE UNIVERSITY OF TEXAS, MEDICAL BRANCH, GALVESTON, TEXAS

The University of Texas Medical Branch at Galveston has career opportunities for three tenure-track Molecular Biophysical Chemistry Faculty positions in the Human Biological Chemistry and Genetics Department. UTMB employs 8,400 people and consists of four schools, two research institutes and seven hospitals.

The University and local private foundations provide excellent support for equipment, research efforts, as well as newly renovated laboratory space. Salaries are highly competitive and commensurate with qualifications and experience.

Successful candidates will provide leadership and will interact with other faculty members, specifically, a newly appointed Robert A. Welch Professor, in developing a center of scientific excellence for applying molecular biophysical chemistry in solving biological problems. Quality research will be the primary criterion. Research experience in any area of biochemistry and biophysics will be a definite plus.

Applications should include a complete curriculum vitae, a summary of future research plans and names of at least three references. Applications must be received by January 19, 1990 and should be addressed to:

E. Brad Thompson, M.D.
I.H. Kempner Professor and Chairman
Department of Human Biological Chemistry
and Genetics
The University of Texas Medical Branch
Galveston, Texas 77550

**UTMB IS AN EQUAL OPPORTUNITY
M/F/V/H AFFIRMATIVE ACTION
EMPLOYER. UTMB HIRES ONLY
INDIVIDUALS AUTHORIZED TO
WORK IN THE UNITED STATES.**

RESEARCH BIOLOGIST/BIOCHEMIST

The Department of Safety Assessment at Merck Sharp & Dohme Research Laboratories, West Point, Pennsylvania has a new position in its Developmental and Reproductive Toxicology unit for a research biologist or biochemist.

The successful candidate will have an M.S. in biology, biochemistry, or chemistry or a B.S. with equivalent experience. Proficiency in HPLC, RIA, and/or other analytical techniques is also desired. Primary responsibilities include supporting studies designed to elucidate mechanisms of toxic effects on development and reproduction caused by new drug candidates.

Excellent salary and benefits accompany these positions at our laboratories located 25 miles north of Philadelphia, PA.

Please send resume, transcripts and three letters of recommendation with salary requirements to:

**Associate Manager, Research Personnel
AD #C-45**

**Merck Sharp & Dohme
Research Laboratories**

**WP42-2
West Point, PA 19486**

EEO/AA/VH/Employer



Merck & Co., Inc.

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

needs a

Legumes Cell Biologist at ICRISAT Center, India

The appointee will develop efficient methods for transferring genes across sterility barriers between the three ICRISAT mandate legumes (groundnut, chickpea, and pigeonpea) and their wild relatives, and to produce doubled haploid from anther cultures. Gene transfer will initially involve overcoming barriers to fertilization and the rescue of hybrid embryos, but is expected to develop into more elaborate methods of exogenous gene transfer as techniques become available. He/she will work in close cooperation with scientists from the Institute's Legumes Agronomy, Breeding, Pathology, Entomology, and the Genetic Resources and Biochemistry Units; and cooperate with national and international biotechnology programs in the exchange of ideas and new technologies.

Essential qualifications: Doctorate degree in plant sciences with at least two years postdoctoral experience in tissue culture, molecular biology, transformation, or haploid production. Ability to work with national and international scientists from a range of disciplines.

Excellent command of English.

Employment is for two years in the first instance, with possibility of extension. Salary and related benefits are free of local tax for expatriates and commensurate with comparable international positions. ICRISAT has links with some 50 developing countries with semi-arid climate. ICRISAT is located at Patancheru 30 km from Hyderabad, the sixth largest city in India with airline connections, good medical facilities, and an international primary school.

Send resume and the names of three referees within 1 month to:

Director General, ICRISAT P.O., Patancheru, Andhra Pradesh 502 324, India.

MICROBIAL GENETICIST

University of Nebraska-Lincoln

The UNL Center for Biotechnology seeks person with a proven record of outstanding research to fill a tenure-track position as Assistant or Associate Professor. Appointments at the rank of Professor will be considered in exceptional cases. Will investigate classical and molecular genetics of a prokaryotic or eukaryotic microbial system of choice. Areas of concentration may include, but are not limited to, genetic regulatory systems, virus genetics, extrachromosomal genetic elements, transformation, organelle genetics, transcription systems, structure and regulation of catabolic pathways, and systems for DNA replication, repair, or recombination. Between 10 and 25% of the appointee's time will be devoted to teaching microbial genetics. Research and collaborations leading to technology exchange with other universities and commercial organizations desired.

Will be housed in, and be a member of, the School of Biological Sciences, and evaluated jointly by the Directors of said school and Center for Biotechnology. Substantial start-up funds available. Technician and routine operating funds are included. Summer salaries available for up to three years, with the expectation that external funding will be obtained. Requires Ph.D. in Biological or Chemical Sciences, post-doctoral experience in academia and/or industry, and publications of outstanding quality. Additional factors are evidence of ability, or potential, to obtain extramural funding, teaching experience, and the desire to participate actively in interdisciplinary/interdepartmental collaborative projects.

Applicants should forward a curriculum vitae, three letters of recommendation, and a synopsis of proposed research postmarked by January 5 (or until suitable candidates apply thereafter) to: Dr. Donald Weeks, Director of Biotechnology, C202 Animal Science Building, University of Nebraska-Lincoln, Lincoln, NE 68583-0945. UNL is an Affirmative Action/Equal Opportunity Employer.

MANAGER TECHNOLOGY ASSESSMENT & ACQUISITION

We're offering an opportunity to a professional with the foresight and scientific expertise to enhance product quality and identify new commercial and technical opportunities.

As a key member of our team, you will identify and gain access to information, technology and products that will cost-effectively improve quality and lead to new commercial or technical opportunities. We look to you to attend scientific meetings, make onsite visits, provide scientific input/evaluations, and manage the review/acquisition of interesting technical opportunities. Involves international travel.

You must have an advanced degree (PhD preferred) in Molecular Biology, Microbiology, Biochemistry or a related discipline, backed by strong industry experience in plant biotechnology. Knowledge/experience with enzymes, flavors, lipids, carbohydrates and food science, as well as strong interpersonal and communications skills required.

As a five-billion-dollar global organization, Campbell Soup Company can offer you an excellent salary, extensive benefits and professional recognition. For more information, please send your resume with salary requirements, in strict confidence, to: **Dept TBS, CAMPBELL SOUP COMPANY, Campbell Place, Box 35D, Camden, N.J. 08103-1799**, Equal Opportunity Employer.

Campbell Soup Company

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ASSISTANT OR ASSOCIATE PROFESSORSHIPS IN PATHOLOGY: MOLECULAR DIAGNOSTICS

The *Department of Pathology at the University of Tennessee Medical Center* is currently developing a strong experimental program in cell and molecular pathology. As part of this endeavor, an emphasis in the area of Molecular Diagnostics is being made for the purpose of integrating knowledge of basic molecular disease characteristics and clinical medicine. Applicants who have M.D., PhD or MD/PhD degrees and an interest in molecular diagnostics are encouraged to apply by submitting their curriculum vitae, bibliography and three letters of recommendation. Preference in the selection process will be given to those applicants with a reputation for scientific productivity and an interest in teaching and interacting with clinicians. Applications will be reviewed as of January 1, 1990 and thereafter until the position is filled. Please send applications to:

**Dr. Robert E. Scott, Chairman
Pathology Search Committee
Department of Pathology
University of Tennessee
800 Madison Avenue, 576 BMH Main
Memphis, Tennessee 38163**

"The University of Tennessee is an equal employment opportunity/affirmative action/Title IX/Section 504 employer."

PLANT BIOTECHNOLOGY

Sogetal

Sogetal, located in the San Francisco Bay Area, is a research center for ORSAN, the biosciences division of LAFARGE COPPEE. We have developed leading technology for the hybridization of small grains, and are establishing a vigorous program for the genetic engineering of cereals.

We announce the following immediate opening in our multidisciplinary program:

PLANT MOLECULAR BIOLOGIST

The ideal candidate will have a PhD in molecular biology, with 0-2 years of post-doctoral experience and experience with plant transformation technology/gene expression for cereals.

Interested applicants please send curriculum vitae to:

Human Resources / GEML

Sogetal, Inc.

3876 Bay Center Place

Hayward, CA 94545

Equal opportunity employer

POSITIONS OPEN

ENVIRONMENTAL SCIENTIST/REMOTE SENSING SPECIALIST, ASSISTANT PROFESSOR. Full-time, tenure-track position at the University of Kansas to teach in the environmental studies program and build research program in Kansas biological survey. Suitable remote sensing and/or GIS specialties include but are not limited to: land/water interface, land cover/vegetation analysis, wetland ecosystem analysis, water pollution assessment, or related area. Salary: \$35,000 to \$40,000 for 12 months. Ph.D. required. Postdoctoral research, teaching, and GIS experience preferred. Start 1 July 1990. Send application letter, curriculum vitae, copies of publications, statement of teaching and research goals, and three letters of recommendation to: **Dr. Edward A. Martinko, Kansas Biological Survey, Foley Hall, 2041 Constant Avenue, Lawrence, KS 66047.** Application deadline: 2 February 1990 or until a suitable candidate is selected. *Equal Opportunity/Affirmative Action Employer.*

DEVELOPMENTAL ANATOMIST. The University of Richmond invites applications for a tenure-track position in biology at the **ASSISTANT PROFESSOR** level. The primary teaching responsibilities will be a course in vertebrate embryology and histology (designed to meet the needs of both biology and pre-medical students), participation in the core courses in animal biology, and the development of an M.S.-level course. Experience in electron microscopy is required. Candidates must have the Ph.D. degree prior to the fall 1990 term, and will be expected to develop an active research program in developmental anatomy involving both undergraduate and M.S. graduate students. Submit curriculum vitae, undergraduate and graduate transcripts, a statement of research plans, and three letters of reference to: **Dr. F. B. Leftwich, Department of Biology, University of Richmond, VA 23173.** Consideration of applications will begin 30 January 1990. *The University of Richmond is an Equal Opportunity/Affirmative Action Employer and actively encourages applications from women and minority candidates.*

DEVELOPMENTAL BIOLOGY AND MICROBIAL ECOLOGY

The Department of Biological Sciences of Duquesne University invites applications for two tenure-track **FACULTY POSITIONS.** One will be filled by a developmental biologist who uses cellular and molecular techniques on lower vertebrate or invertebrate systems. The second position, for which final approval is expected, is for a microbial ecologist with molecular and biochemical skills. Postdoctoral experience is required. Successful candidates are expected to establish active, extramurally funded research programs and participate in undergraduate and graduate teaching and research. To apply, submit curriculum vitae, a description of research program, teaching interests, and recent publications, and arrange for three letters of recommendation to be sent to: **Dr. H. Bernard Hartman, Chairperson, Department of Biological Sciences, c/o Office of Human Resource Management, Duquesne University, Pittsburgh, PA 15282.** To receive full consideration, completed application materials should be received by 12 January 1990. *Applications from women and minority candidates are especially welcome. Duquesne University is an Equal Opportunity/Affirmative Action Employer.*

PHARMACOLOGY AND TOXICOLOGY FACULTY POSITION

The Department of Pharmacology and Toxicology of Albany Medical College invites applications for a full-time faculty position (**ASSISTANT PROFESSOR**, tenure-track). Candidates should have extensive training in the use of recombinant DNA/RNA technology to investigate the properties of biological systems. Ample research space and start-up funds are available. The successful candidate will be expected to develop an externally funded research program and participate in graduate and medical school teaching.

The Department of Pharmacology and Toxicology currently has 10 independently funded full-time faculty. Send curriculum vitae and names of three references by 15 February 1990 to:

Dr. Milt Titeler
Chairman, Faculty Search Committee
Department of Pharmacology and Toxicology
Albany Medical Center
Albany, NY 12208

Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

NATURAL HISTORY MUSEUM DIRECTOR

A dynamic professional with proven administrative skills, knowledge of natural history, and excellent leadership, interpersonal, and communication skills is sought as director of natural history museum. Responsible for the administration of all museum operations. Program emphasis in education and research in malacology and ornithology; staff of 20 and volunteer corps of 80. Salary commensurate with background and experience. Send application letter, résumé, and names and telephone numbers of three references by 15 January 1990 to: **Search Committee, Delaware Museum of Natural History, P.O. Box 3937, Wilmington, DE 19807.** *Equal Opportunity Employer.*

DEVELOPMENTAL GENETICS MOLECULAR BIOLOGY

Applications are invited for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level. We seek a promising scholar who uses molecular and/or genetic techniques to study the molecular basis of cell determination and differentiation. Successful candidates will be expected to establish a vigorous independent research program and to reinforce our strong commitments to research, graduate training, and undergraduate instruction. Competitive salary, facilities, and start-up funds are available. Send curriculum vitae, statement of research interests, and names of three references by 30 January 1990 to:

Genetics Molecular Biology Search Committee
T. H. Morgan School of Biological Sciences
University of Kentucky
Lexington, KY 40506-0225

An Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS, PHARMACOLOGY. Full-time, tenure-track appointments at the rank of **ASSISTANT PROFESSOR** are available in the newly reorganized Department of Pharmacology at the Louisiana State University Medical Center (LSUMC), New Orleans. Applicants should have a Ph.D. with a minimum of 2 years of postdoctoral experience. Under special circumstances appointments at the level of associate professor will be considered. Establishment of an independent research program funded by extramural support is expected, as is participation in the educational programs of the department. Candidates with research interests in neuropharmacology or in CNS control over cardiovascular, respiratory, renal, or GI function are especially encouraged. Applicants should send curriculum vitae, a brief statement of present and future research directions, and the names, addresses, and telephone numbers of three references to: **Dr. J. M. Moerschbaecher, Head, Department of Pharmacology, LSU Medical Center, 1901 Perdido Street, New Orleans, LA 70112-1393.** *LSUMC is an Equal Opportunity/Affirmative Action Employer.*

DEPARTMENT OF BIOCHEMISTRY THE UNIVERSITY OF ARIZONA FACULTY POSITION IN X-RAY CRYSTALLOGRAPHY

Applications are invited for a tenure-track position in x-ray crystallography for macromolecular systems. Although there is a preference for candidates at the **ASSISTANT PROFESSOR** level, applicants at more senior levels will be considered. This is part of an ongoing effort to develop an exceptionally strong program in structural biology and biophysics. We have recently added three NMR spectroscopists and an x-ray crystallographer to this program, and plan to fill additional positions in the next 1 to 2 years. Applicants will be expected to carry out a vigorous research program with ample opportunities for collaboration, as well as to contribute to our graduate and undergraduate teaching programs. An excellent crystallographic facility is available, with funds in place for the purchase of additional equipment. Applicants should submit curriculum vitae, representative reprints, a short statement of research plans, and have at least three letters of reference sent to: **Dr. William Montfort, Co-chair, Search Committee, Department of Biochemistry, The University of Arizona, Tucson, AZ 85721.** Review of applications will begin 15 January 1990, but the position will remain open until filled.

Women and minorities are urged to apply. An Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.

POSITIONS OPEN

UNIVERSITY OF ARIZONA HEALTH SCIENCES CENTER

The Hematology and Oncology Section of the Department of Internal Medicine and the Arizona Cancer Center are seeking a tenure-track faculty member as **CHIEF OF HEMATOLOGY.** The candidate must be an M.D. or M.D./Ph.D., must be Board-eligible or -certified in hematology, and have an established academic research program in hematology. The candidate should be experienced in both benign and malignant hematology and be prepared to lead a group of physicians in a hematology consultative and teaching service. Academic rank, salary, laboratory space and start-up funds are negotiable. Applications will be accepted to 31 December 1989, or until the position is filled. Applicants should contact:

Evan M. Hersch, M.D.
Chief, Section of Hematology and Oncology
Arizona Cancer Center
1501 North Campbell Avenue
Tucson, AZ 85724
Telephone: 602-626-2250

Send curriculum vitae, bibliography, and three letters of recommendation. *Applications from women and minority group members are encouraged. The University of Arizona is an Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION IN MOLECULAR GENETICS DEPARTMENT OF BIOLOGY UNIVERSITY OF UTAH

We hope to appoint to a tenure-track position an individual with a strong background in basic genetics and an active research interest in the area of molecular genetics. Preference is for the **ASSISTANT PROFESSOR** rank but we will not exclude a higher rank if the right person is found. The individual must be able to teach both traditional and recombinant DNA-based genetics effectively and enthusiastically. The particular experimental organism used is not critical, but should be either a well-developed standard genetic system or a demonstrably promising new genetic organism. This individual should be able to interact productively with faculty and students having a wide range of research interests. In addition to genetics, the department includes molecular biology, cell biology, and biochemistry as well as organismal physiology, ecology, and evolution. Application review will start 1 January 1990 and continue until the position is filled. Under exceptional circumstances, a second position in this area may be filled. Applicants should submit curriculum vitae, description of research interests, and three letters of reference to: **Genetics Search Committee, Department of Biology, 201 South Biology Building, University of Utah, Salt Lake City, UT 84112.** *The University of Utah is an Equal Opportunity/Affirmative Action Employer.*

CARNEGIE MELLON UNIVERSITY THE DEPARTMENTS OF BIOLOGICAL SCIENCES AND CHEMISTRY INVITE APPLICATIONS FOR FACULTY POSITIONS IN X-RAY CRYSTALLOGRAPHY

The Departments of Chemistry and Biological Sciences announce their intention to establish a research center in biological structure. Applications are particularly solicited from individuals with research programs focusing upon the use of x-ray crystallography to analyze biological structure and function. An outstanding opportunity exists at Carnegie Mellon to establish a major center for analysis of biological structure. This center will eventually involve three new faculty appointments. We hope to identify at least two faculty members this academic year. Appointees will hold tenure-track positions in biological sciences and/or chemistry at a faculty level commensurate with experience. To apply, send curriculum vitae and a concise description of research interests (no more than three pages), and, in addition, have three letters of recommendation sent to:

Search Committee, Biological Structure
Departments of Biological Sciences and Chemistry
Carnegie Mellon University
4400 Fifth Avenue
Pittsburgh, PA 15213

Deadline for applications: 1 February 1990. *Carnegie Mellon University is an Equal Opportunity/Affirmative Action Employer.*

Research Fellow

Contribute your knowledge to
The New York Blood Center

Become part of a highly skilled team of professionals working within one of the leading blood centers in the country. Postdoctoral position is immediately available for an individual with interest/expertise in protein isolation and enzyme characterization, to work on purification of enzymes and use them to modify the surface antigens of red cells. To qualify, you'll need a Ph.D. in Molecular Biology, Biochemistry with expertise in recombinant DNA techniques. Master's Degree with relevant experience would be considered.

In addition to excellent working conditions, we offer a salary commensurate with experience, convenient eastside location, liberal vacation, tuition refund and medical/dental benefits. If qualified, please send CV, along with names and addresses of three references to: **JG/Human Resources, THE NEW YORK BLOOD CENTER, 150 Amsterdam Avenue, New York, New York 10023.** Equal opportunity employer M/F.

THE NEW YORK
BLOOD CENTER



The Squibb Institute for Medical Research

SR. RESEARCH INVESTIGATOR CLINICAL ASSAY DEVELOPMENT

The Squibb Institute for Medical Research is recognized internationally as a leader in the research and development of novel pharmaceuticals and related health care products. Currently, we have a position available for a Sr. Research Investigator to join our Clinical Assay Development Department at our New Brunswick, NJ facility.

Our successful candidate will lead a project involving the identification and labeling of proteins which can be directed towards atherosclerotic lesions. Requirements include a Ph.D in Biochemistry (or equivalent) with 4-5 years in a related field which must include experience in protein labeling. A background in animal modeling with hands-on surgical experience is necessary. Experience with bifunctional chelating reagents or iodination for the labeling of monoclonal antibodies is an asset. An understanding of the atherosclerotic process at the biochemical and physiological level would be an advantage.

We offer a competitive salary and benefits package. For consideration, please forward your resume, including salary history, to: **The Squibb Institute for Medical Research, Dept.AK/E13789, P.O. Box 191, New Brunswick, NJ 08903.** An equal opportunity employer.

SQUIBB A Bristol-Myers Squibb Company

MacArthur Foundation Postdoctoral Traineeships in Aging

The MacArthur Foundation Research Program on Successful Aging invites applications from graduates of advanced degree programs to conduct research on a collaborative, interdisciplinary study of aging in six sites.

Trainees will work with a team of investigators working on longitudinal studies of elderly and will have a unique opportunity to be a part of interdisciplinary gerontologic research. While most trainees will be based in laboratories of investigators leading population-based studies, there is also an interest in applicants with a biological or physiological orientation who will serve as liaison between these studies and other more clinically-oriented and basic biological studies that are part of the research program.

The focus of the studies is on the maintenance of physical and cognitive functioning in a psychosocial and physiologic context and on developing new interdisciplinary approaches to larger issues in health and aging.

Positions are available for M.D.'s or Ph.D.'s with an interest in aging, physiology, neuropsychology, endocrinology, epidemiology, basic biologic sciences, biostatistics, psychology, psychiatry, sociology or related fields. Positions are available at the University of Southern California, University of California at Irvine, Mt. Sinai Medical Center in New York, Duke University, Harvard University and the University of Michigan.

Emphasis will be placed on candidates' abilities to work in an interdisciplinary setting. Positions are available for terms of 1 or 2 years.

Salaries range up to \$40,000, commensurate with qualifications and university policy.

Submit curriculum vitae, publications, names of three references, preferences for a specific site and a 2-page statement, including areas of expertise and future research plans to:

Lisa F. Berkman, Ph.D.
Department of Epidemiology
Yale School of Medicine
60 College Street
New Haven, Connecticut 06510

Affirmative Action Employer

Deadline for Applications to be received is January 30, 1990



Wayne State University

The Department of Biological Sciences is undertaking a major development effort, recruiting 11 additional faculty over the next 5 years, constructing a new Biological Sciences Building, scheduled for completion in Summer, 1991, and establishing several new programs for graduate and undergraduate students, including the Molecular Biotechnology Program and the Howard Hughes Research Initiative. We invite applications for two tenure-track faculty positions at the Assistant or Associate Professor level from individuals trained in the following areas:

MOLECULAR EVOLUTION

We seek candidates whose interests lie in the area of evolutionary genetics with a specialization in molecular approaches to systematics, population genetics, or genome evolution. Applications are encouraged from all qualified individuals but preference will be given to candidates specializing in plant biology.

MICROBIOLOGIST

We seek candidates whose interests lie in the area of microbial physiology, molecular genetics, or molecular cell biology, employing either prokaryotic or eukaryotic microorganisms. Preference will be given to candidates with postdoctoral experience.

The successful candidates will be expected to establish a vigorous extramurally-funded research program. Women and minority candidates are strongly encouraged to apply. Review of candidates will begin **22 December 1989** and continue until a suitable candidate has been identified. Send curriculum vitae, including a one-page statement of research interests, and the names of four references to:

Dr. P. Dennis Smith, Chairman
Faculty Search Committee
Department of Biological Sciences
Wayne State University
Detroit, Michigan 48202

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



Inflammation/Arthritis Research Scientists

CIBA-GEIGY Pharmaceuticals Division is a world leader in the scientific research and development of health-protecting and life-enhancing products. Our work in the area of anti-rheumatic compounds is an outstanding example of this commitment. These project opportunities are based at our 100-acre headquarters complex in Summit, New Jersey.

Senior Scientist

Joining our drug assessment team effort, you will apply your experience with acute and chronic animal models of inflammation/arthritis. Must be familiar with inflammatory mediators and cartilage biochemistry. A PhD in pharmacology, biochemistry or a related field is required, plus several years of postdoctoral experience.

Associate Scientist

You will participate in the pharmacologic evaluation of anti-arthritis drugs in animals. Requires an MS or BS in biological sciences, pharmacology or related field, plus several years related experience. Flexibility and the ability to interact as a member of a research team is essential.

CIBA-GEIGY offers excellent salaries, comprehensive benefits and the opportunity for professional growth. Please send your resume with salary history and requirements to: **Al Aronson, Staffing Center, CIBA-GEIGY Corporation, Pharmaceuticals Division, Dept GDP, 556 Morris Avenue, Summit, New Jersey 07901.** We Are An Equal Opportunity Employer M/F/H/V.

Science Serving Mankind

CIBA-GEIGY

Macroinvertebrate Community Ecologist

Join an interdisciplinary NSI team to develop and implement research on national ecological monitoring and assessment. NSI is under contract to the U.S. Environmental Protection Agency at the Corvallis Environmental Research Laboratory. Research results will be published in peer-reviewed journals and government reports.

Qualified candidates will have a PhD in a biological science and field experience in sampling macroinvertebrate and zooplankton communities in various regions of the U.S. Experience must include developing research strategies and plans, conducting research projects, sample and data analysis, and technical report writing. Candidates must be knowledgeable about landscape ecology, aquatic ecology, limnology, water pollution biology, multivariate statistical analysis, and assessments of environmental quality. A strong record of publications and presentations and experience with regional or statewide evaluations of lakes and streams are required. Demonstrated scientific creativity and the ability to link research with environmental concerns and policy are highly desirable.

Applications must include a cover letter specifically relating experience to these qualifications, a resume, three sample reprints and a list of professional references. Cite reference #4520-070 in your correspondence and respond by December 29, 1989.

**Human Resources
NSI Technology Services Corporation
1600 SW Western Blvd.
Corvallis, Oregon 97333**

A subsidiary of ManTech International Corp. An EEO Employer

POSITIONS OPEN

NIH-funded position available immediately (2 to 5 years) to examine **GENE THERAPY** approaches to inhibit HIV, using retroviral vectors in murine and human lympho-hematopoietic cells. Background in molecular biology/virology/hematopoiesis preferred. Send curriculum vitae and three references to: **Dr. Donald Kohn, Division of Research Immunology/Bone Marrow Transplantation, Childrens Hospital of Los Angeles, 4650 Sunset Boulevard, Los Angeles, CA 90027.** Childrens Hospital of Los Angeles and its affiliation with the University of Southern California, School of Medicine, are Affirmative Action/Equal Opportunity Employers.

GENETICS

Oberlin College invites applications for a 1-year sabbatical replacement position, beginning August 1990, to teach one course in introductory genetics: one course in virology, immunology, or another advanced undergraduate laboratory course; a senior seminar; and to participate in a team-taught introductory human biology course. Oberlin College has over 140 majors in biology and neuroscience, many of whom participate with faculty in active research programs. Candidates must demonstrate interest and potential excellence in undergraduate teaching and have a Ph.D. expected or in hand by 1 September 1990. To be assured of consideration, a letter of application, a résumé, academic transcripts, and three letters of reference should be sent to: **Chair, Biology Department, Oberlin College, Oberlin, OH 44074** by 19 January 1990. Application materials received after that date may be considered until the position is filled. Minorities and women are encouraged to apply.

HUMAN NUTRITION RESEARCH

The Western Human Nutrition Research Center (WHNRC) of USDA's Agricultural Research Service, San Francisco, California, is recruiting for two research scientists: a **PSYCHOLOGIST/PHYSIOLOGIST** to study effects of malnutrition on behavior and the nervous system and a **CHEMIST/PHYSIOLOGIST** to study relationships between nutrient status and biochemical measures. Emphasis will be on human research. The overall focus of research at WHNRC is to determine human nutrient requirements and to develop new techniques for nutritional status assessment. Ph.D. desired. U.S. citizenship required. Salary will be determined by qualifications, minimum being \$28,286. For information on the research program, contact: **Dr. M. Schaeffer, WHNRC, P.O. Box 29997, San Francisco, CA 94129.** Telephone: 415-556-5655. For application procedures, contact: **Ms. Rita Millard, ARS Personnel Division.** Telephone: 301-344-3138. Application deadline: 22 January 1990. Equal Opportunity Employer.

MAMMALIAN RADIATION BIOLOGIST to develop research in late normal tissue response to irradiation with emphasis on the nervous system, participate in the teaching program, and supervise graduate students. A Ph.D. in radiation biology or a closely related field is required. A demonstrated record of research accomplishment will be expected. Salary and rank will be negotiated for this tenure-track position. Application deadline: 15 January 1990 or until position is filled.

Send curriculum vitae and three references to: **E. L. Gillette, Chairman, Radiology and Radiation Biology Department, Colorado State University (CSU), Fort Collins, CO 80523.**

CSU is an Affirmative Action/Equal Opportunity Employer. Equal Opportunity Office, 314 Student Services Building.

MOLECULAR/CELL BIOLOGY

Oberlin College invites applications for a 1-year sabbatical replacement position, beginning August 1990, to teach one course in introductory cell and molecular biology, one advanced undergraduate course on nucleic acids, and a senior seminar. Oberlin College has over 140 majors in biology and neuroscience, many of whom participate with faculty in active research programs. Candidates must demonstrate interest and potential excellence in undergraduate teaching and have a Ph.D. expected or in hand by 1 September 1990. To be assured of consideration, a letter of application, a résumé, academic transcripts, and three letters of reference should be sent to: **Chair, Biology Department, Oberlin College, OH 44074** by 19 January 1990. Application materials received after that date may be considered until the position is filled. Minorities and women are encouraged to apply.

POSITIONS OPEN

HEAD OF THE DEPARTMENT OF CELLULAR AND MICROBIOLOGY OKLAHOMA STATE UNIVERSITY

The College of Arts and Sciences of Oklahoma State University (OSU) is seeking applicants for the position of head of a newly formed department combining microbiology and cell biology-oriented faculty. The new department will offer undergraduate and graduate degree programs in cell biology and oversee existing programs in microbiology and medical technology. Current faculty members have productive research programs in a variety of disciplines.

This position offers an excellent opportunity for an individual interested in building a new departmental structure and program. The university administration has made a strong commitment to the further development of microbiology and molecular biology. The department head will play a major role in recruiting four new faculty members over the next 2 years. Salary and start-up funds are competitive and commensurate with qualifications and experience.

Investigators with a record of outstanding funded research in microbiology, cell biology, or molecular biology are encouraged to apply. Experience in managing an interdisciplinary program involving scientists of diverse backgrounds is desirable.

Inquiries and applications should be directed to: **Head, Search Committee, College of Arts and Sciences, Oklahoma State University, Stillwater, OK 74078. Telephone: 405-744-5663.** To receive full consideration, applications should be received by 30 January 1990. OSU is an Affirmative Action/Equal Opportunity Employer.

MOLECULAR BIOLOGIST

Studying cellular or developmental phenomena in a eukaryotic system.

The Biology Department of Boston College has a full-time tenure-track position available at the **ASSISTANT PROFESSOR** level beginning in September 1990 for an individual with a Ph.D. and at least 2 years of postdoctoral experience to establish a vigorous, externally funded research program. In addition to teaching in his/her area of expertise, the candidate will be expected to contribute to departmental teaching needs in one area such as: introductory biology, immunology, cellular biology, or evolution.

Boston College, a university of 14,000 students, has a growing Biology Department with 20 faculty members and 50 graduate students in the M.S. and Ph.D. programs. The university has a strong commitment to research and offers competitive salaries, excellent start-up funds, and well-equipped facilities. Applications should include curriculum vitae, a list of publications, and a summary of current and future research plans. Applicants should also arrange for three letters of reference to be sent. All materials should be received by 31 January 1990 by:

Search Committee
Biology Department
Higgins Hall
Boston College

Chestnut Hill, MA 02167

Equal Opportunity/Affirmative Action Employer.

PLANT PHYSIOLOGIST

ASSISTANT PROFESSOR. The Department of Biological Sciences at Butler University wishes to fill a tenure-track position to begin fall 1990. Butler University is a selective, private university located on a beautiful 300-acre campus in the residential heart of Indianapolis. The position stresses enthusiasm for teaching and directing undergraduate research. Teaching responsibilities include plant physiology and introductory biology. An individual research laboratory will be provided and start-up costs negotiated. Candidates must have a Ph.D. degree. Applicants should submit curriculum vitae, undergraduate and graduate transcripts, a statement of teaching and research interests, and arrange for three letters of reference to be sent by 9 February 1990 to: **James L. Shellhaas, Department of Biological Sciences, Butler University, Indianapolis, IN 46208.** Selection for interviews will begin on 9 February 1990 and will continue until a suitable candidate is found. *Butler University is an Equal Opportunity/Affirmative Action Employer.*

BROOKHAVEN NATIONAL LABORATORY

Global Change Research Program Department Of Applied Science

A Global Change Research Program is being initiated in the Department of Applied Science at Brookhaven National Laboratory to investigate the effects of energy-related activities on the global ecosystem. The program will involve a multidisciplinary research group of professionals including atmospheric chemists, physical, chemical and biographical oceanographers, meteorologists and applied mathematicians.

Positions are available immediately in the following research areas, at a rank to be determined by experience and qualifications. Preference will be given to recent Ph.D. recipients. However, senior researchers, including those contemplating sabbatical, are encouraged to apply. Salary and benefits are dependent upon rank of appointment.

- **Remote sensing** of cloud albedo, sea surface temperature and phytoplankton. Using satellite data, the appointee(s) will work with atmospheric chemists and oceanographers to test hypotheses related to cloud optical properties, radiative forcing and biological feedback mechanisms. Candidates must have experience in reduction and analysis of satellite data and training in atmospheric physics, oceanography or climate modeling.
- **Climate modeling** in which the appointee(s) will work with numerical modelers, oceanographers and atmospheric scientists to develop integrated atmosphere-ocean circulation models which include biological processes. The research effort will explore new approaches to parallel asynchronous programming. Candidates must have a strong mathematical background, be familiar with running general circulation models and have training in one of the following areas: climatology, atmospheric physics, or physical oceanography.
- **Atmospheric optics**, emphasizing radiative transfer theory and/or measurement. The successful applicant will participate in a research project examining changes in the greenhouse gases and radiative forcing. A background in atmospheric or oceanographic optics is desired.
- **Numerical simulation modeling** of terrestrial plant production. The successful applicant will work with plant physiologists and mathematicians on the development of numerical models relating changes in environment, such as temperature, precipitation and CO₂ concentrations, to changes in production of crop and ecotypic plant species. Candidates must have training in one of the following areas: plant physiology, terrestrial ecology or mathematical bioscience.
- **Systems modeling**, to develop large-scale numerical simulation models which include biological, chemical and physical processes on ecosystem levels. Candidates must have terrestrial or oceanographic modeling experience.
- **Laboratory investigation** and modeling of chemical and optical properties of single particles and aerosols. The successful applicant should have experience in one or more of the following areas: solid state chemistry, solution thermodynamics, phase transition phenomena, and radiative transfer in the atmosphere. Candidates must be expert in digital electronics and data processing techniques, as well as having good computational skills.
- **Laboratory studies** of aqueous-phase and surface reactions of trace atmospheric species. Candidates must have experience in one or more of the following areas: spectroscopy, sub-ppb level chemical analysis, and digital data acquisition systems.

Candidates should apply with a letter identifying the area of interest and research goals, and a resume, including names of three references and a publications list, to: **Dr. Leon Petrakis, Chairman, Department of Applied Science, Building 179A, Brookhaven National Laboratory, Associated Universities, Inc., Upton, L.I., NY 11973.** Equal opportunity employer M/F.

 **BROOKHAVEN
NATIONAL LABORATORY**
ASSOCIATED UNIVERSITIES, INC.



Senior Cardiovascular Research Scientist

With Our Support, You Can Make The Next Breakthrough In Drug Discovery

Our products have improved life for thousands afflicted with hypertension and angina pectoris, and we are heavily committed to the research of new cardiovascular drugs. The next breakthrough could be yours.

CIBA-GEIGY understands the investment and its rewards. You'll take charge of the research efforts in the areas of in vivo cardiovascular pharmacology, specifically for the treatment of myocardial ischemia and coronary thrombosis. This will involve supervising lab personnel, working with in-house research groups, and preparing both internal reports and external publications.

We're seeking a Ph.D. in Cardiovascular Pharmacology or Physiology with a strong background in the measurement of hemodynamic parameters in anesthetized animal preparations, with an emphasis on the evaluation and characterization of drugs used to treat myocardial ischemia. At least 4 years of Post-Doctoral training in a relevant research area is necessary and industrial experience would be beneficial.

We'll give you the resources, support, talent and state-of-the-art facilities you'll need to make an impact. In addition, we offer the compensation and benefits you'd expect from an industry leader. Please forward your resume with salary history and requirements, to: **Mr. Al Aronson, Staffing Center, Dept 326, Pharmaceuticals Division, CIBA-GEIGY Corporation, 556 Morris Avenue, Summit, NJ 07901.** We Are An Equal Opportunity Employer M/F/H/V.

Science Serving Mankind

CIBA-GEIGY

POSTDOCTORAL TRAINING IN CELL REGULATION

The Department of Biochemistry, St. Jude Children's Research Hospital, announces a training program in the molecular and cellular biology of cell growth, differentiation and transformation. The program emphasizes a multidisciplinary approach that develops skills in biochemistry, molecular genetics and cell biology. Fellows benefit from training in energetic, well-funded laboratories within an expanding research institute. We offer competitive stipends plus the benefit of living in a growing, economical, sunbelt community. Specific research groups participating in the program include:

- W. Y. Cheung: Regulatory properties and biological functions of calmodulin; Ca^{2+} regulated enzymes
- J. Cleveland: Growth factor signal transduction and regulation of gene transcription
- V. A. Fried: The ubiquitin system and post-translational regulatory pathways
- J. N. Ihle: Mechanisms of hematopoietic stem cell growth regulation, differentiation and transformation
- S. Jackowski: Regulation of phospholipid metabolism and the production of lipid-derived second messengers
- C. Rock: Cell cycle regulation of membrane biogenesis
- E. Thomas: Antimicrobial and antitumor mechanisms of leukocytes

Further information on individual research programs can be obtained by writing the Department of Biochemistry. Applicants should indicate the research group(s) they are interested in, submit a brief statement of their research interests, curriculum vitae, reprints, and names of three references to:

Postdoctoral Training Program
Department of Biochemistry
St. Jude Children's Research Hospital
332 N. Lauderdale
Memphis, TN 38105

An Equal Opportunity/Affirmative Action Employer

Director Marine Resources Research Institute

The Marine Resources Research Institute conducts applied research within the Division of Marine Resources of the South Carolina Wildlife and Marine Resources Department. The state supported Institute also provides research support for other state agencies with marine-related regulatory responsibilities. The three major areas of research concentration are in fisheries, environmental studies, and aquaculture.

The Institute, with a staff of 10 Ph.D. scientists, 24 senior M.S. level biologists and 33 associated technical and support staff, operates on state-appropriated (\$1,645,000) and grant-supported extramural funds (\$1,831,000). The selected candidate will supervise the daily operation of the Institute, develop and implement its annual budget, and initiate research programs.

In addition to overseeing a diverse multidisciplinary research effort, the candidate must demonstrate a commitment to education in the marine sciences and be able to attain faculty standing within the State's university and college community.

We seek an experienced Ph.D. researcher with ten or more years of experience and demonstrable communication and leadership skills, as well as a record of increasing responsibility as a research manager.

Salary and benefits are competitive and based on experience. For an application package, please contact Ms. Anita Mitchum, Personnel Officer, Division of Marine Resources, P.O. Box 12559, Charleston, S.C. 29412 or call (803) 762-5035. Deadline for receipt of completed applications is March 1, 1990.

Minority applicants are encouraged to apply as we are an equal opportunity employer.



DIAGNOSTIC PRODUCT DEVELOPMENT AND CLINICAL STUDIES

Amgen has emerged as an innovative leader in the discovery and development of human therapeutics through applied biotechnology. As a result of our continued growth, we have immediate opportunities available in Diagnostic Product Development and Product Support in our rapidly expanding Diagnostics Group located in Boulder, Colorado for the following positions:

PRODUCT DEVELOPMENT SCIENTIST

Responsibilities include coordinating all aspects of a product's diagnostic development, including costs, scheduling, and transfer to manufacturing.

Qualified candidates must have a Ph.D. with at least 5 years' diagnostic product/process development and supervisory experience. A knowledge of statistical experimental design and a track record of successful diagnostic development are ideal.

PRODUCT DEVELOPMENT ASSOCIATE

Candidates should have a B.S. or M.S. with 3-5 years' experience in product/process development. A knowledge of ELISA technology and familiarity with immunodiagnostic development are advantages.

CLINICAL STUDIES COORDINATOR

Responsibilities include establishing, tracking, and publishing results from clinical studies for diagnostic products. This position will also involve supporting existing products and identifying new product opportunities.

Candidates must have an established track record with at least 5 years' experience. A solid knowledge of immunodiagnostics and excellent communication skills are required.

Amgen offers an excellent compensation and benefits package and the unique opportunity to contribute to significant research programs on the cutting edge of biotechnology. If you have the necessary skills and qualifications and would like to be a part of a company that places a high priority on its human resources, please send a resume, in confidence, to:

AMGEN BOULDER, INC.
2045 32nd Street
Unit 6
Boulder
CO 80301

Equal
Opportunity
Employer

AMGEN

PLANT BIOLOGY RESEARCH FELLOWSHIPS

**SAMUEL ROBERTS NOBLE FOUNDATION and
THE SALK INSTITUTE
JOINT PROGRAM**

Applications are now being accepted for two Noble Foundation Fellowships for post-doctoral research in Plant Molecular Biology. These Fellowships are a key element in a collaborative program between the Plant Biology Division, Noble Foundation, Ardmore, Oklahoma, directed by Dr. Richard A. Dixon, and the Plant Biology Laboratory, The Salk Institute for Biological Studies, La Jolla, California, directed by Dr. Christopher J. Lamb.

Research topics include biochemical, molecular and genetic analysis of signal transduction pathways for environmental and developmental regulations of plant gene expression. The Fellowships are for three years beginning September 1990. Eighteen months will be spent in each laboratory.

Please send resume and three letters of recommendation to Dr. C.J. Lamb, The Salk Institute for Biological Studies, P.O. Box 85800, San Diego, CA 92138. Telephone (619) 453-4100, x106.

Equal Opportunity Employer M/F/H/V

Department of Biology UCLA Graduate Training Course

Marine Molecular Biology

Sponsored by the Office of Naval Research

We are pleased to announce the second annual graduate course in
Marine Molecular Biology

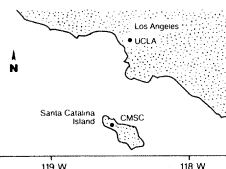
When
April 2—June 11, 1990

Where
Catalina Island Marine Science Center
Two Harbors, Catalina Island, CA 90704

Faculty
Drs. David Chapman
Elma Gonzalez
James Morin
Leonard Muscatine
Nicolas Neckelmann
[Emory University]

Fees
Tuition (UCLA credit 12 units)
\$470 (California resident)
\$1902 (non-resident)
Room and board at CMSC
\$1150

ONR Fellowships
available on a competitive basis.
The Catalina Marine Science Center is owned and operated by the University of Southern California. Facilities include lecture hall, wet/dry labs, dormitory, cafeteria, apartments, boats, dive locker. There is immediate access to a rich marine flora and fauna. A fast commercial boat serves the island from San Pedro, CA.



Intensive Hands-on Laboratory Experience
This intensive 10-week course is intended to train marine biologists to become versatile in techniques of cell and molecular biology and biochemistry. Preference will be given to graduate students in marine sciences.

Intended for Beginners
No previous experience in molecular biology is required or expected, but basic background in cell biology and biochemistry is assumed. The course will include lectures, seminars, field and laboratory exercises and independent research projects. Emphasis will be placed on learning advanced techniques. These will include aseptic inoculation, growth rate measurement, nutrient analyses, gas fluxes, chromatography, HPLC, FPLC, mRNA isolation, *in vitro* translation, immunoprecipitation, gel electrophoresis, enzyme assays, ultracentrifugation, protein purification, antibody preparation, western blotting, immunostaining, fluorescent antibody detection, isolation of organelles and nucleic acids, restriction endonuclease analysis, Southern blotting and hybridization, nucleotide sequencing, preparation of gene probes and construction of genomic libraries. Techniques will be applied exclusively to marine organisms.

For Applications & Information
contact Dr. L. Muscatine or Dr. D. Chapman

UCLA
Department of Biology
Los Angeles, CA 90024-1606
(213) 825-1771, or 825-3481
Application deadline: January 13, 1990
Late applications may be reviewed



**The University of Manitoba
INDUSTRIAL RESEARCH CHAIR IN
FERMENTATION TECHNOLOGY**

Applications are invited for a Senior tenured or tenure track appointment effective 1 July 1990 as Industrial Research Professor in Fermentation Technology. The Chair has been established through a five year funding program from the Natural Sciences and Engineering Research Council in collaboration with an industrial sponsor. The Chairholder will be expected to take the lead in developing a research program in fermentation technology. Candidates must have an international status in the field and will be expected to interact in the research and development fields of ABI Biotechnology Inc.

The Chairholder will be expected to attract significant research contracts from industry to augment the substantial funding for equipment, research staff, and operating expenses which are available.

The applicant should have a Ph.D. degree and at least ten years of industrial research experience or equivalent education and experience. Salary is negotiable. The Chair is primarily a research position, and as such teaching loads will be light with the emphasis on graduate student teaching and research.

Both women and men are encouraged to apply. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents.

Applicants should arrange to have three letters of reference, curriculum vitae, recent reprints and a brief description of present and prospective research forwarded to: **P. Loewen, Chairman Search Committee, Department of Microbiology, The University of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2.**

Applications and/or nominations will be accepted up to the 31st December 1989, or until the position is filled.

Research Scientists

Radiation Oncology Dept.

Research positions available for studies in vascular biology and cancer research.

Qualified applicants should possess a Ph.D. in Biological Sciences. Experience in biochemical/molecular biological/tissue culture/microscopy-imaging methods is highly desirable.

Send CV's to **Susan Miller, Radiation Oncology Department, Long Island Jewish Medical Center, New Hyde Park, NY 11042.**

Long Island Jewish Medical Center

**Long Island Campus for the
Albert Einstein College of Medicine**
Equal Opportunity Employer

POSITIONS OPEN

FACULTY FOR EUROPE AND ASIA

The University of Maryland anticipates openings for faculty to teach undergraduate science courses on U.S. military bases overseas. Requirements include the Ph.D. or two masters degrees, recent college teaching experience, U.S. citizenship, and competence to teach in two of the following fields: astronomy, biology, chemistry, computer studies, geology, mathematics, and physics. Renewable annual appointments begin August 1990. Frequent travel and the cost of schooling make these positions difficult for those with children. Send résumé to: **Dr. Ralph E. Millis, The University of Maryland University College, College Park, MD 20742-1642.** *Affirmative Action/Equal Opportunity Employer.*

South Carolina State Public Health Laboratory, Department of Health and Environmental Control, Bureau of Laboratories, is seeking a **PATHOLOGIST** to head Division of Clinical Pathology. Areas of responsibility: immunohematology, flow cytometry, exfoliative cytology. Candidate must be B.C. or B.E. A.P./C.P., or qualified in cytology by examination by American Society of Cytology, International Academy of Cytology, or American Board of Pathology (cytopathology). Send curriculum vitae with salary expectations and references to: **Arthur F. DiSalvo, M.D., Chief, Bureau of Laboratories, P.O. Box 2202, Columbia, SC 29202. Telephone: 803-737-7042.** Application reviews begin 2 January 1990. *Equal Opportunity Employer.*

PLANT BIOLOGIST

ASSISTANT PROFESSOR, tenure-track teaching/research position is available for a plant biologist. Area of expertise should include plant cell/tissue culture, biochemistry, physiology, and cell biology. Familiarity with modern molecular techniques is expected. The successful candidate should be able to teach courses in general biology, plant physiology, plant cell/tissue culture, and nonmajors biology. An opportunity exists for developing additional courses in your specialty. The development of a research program involving undergraduates is required and will be supported. Salary is competitive and commensurate with qualifications. Current faculty includes eight full-time members. Submit curriculum vitae, transcripts, evidence of teaching ability, publications, plan of proposed research, and three letters of recommendation to: **Dr. Paula Dehn, Chair, Biology Department, Canisius College, 2001 Main Street, Buffalo, NY 14208** by 1 February 1990. Informal inquiries are welcome: **telephone: 716-888-2555.** *Women and minorities are encouraged to apply.*

POSTDOCTORAL POSITION. National Institutes of Health, National Institute of Environmental Health Sciences. Position available in the Eicosanoid Biochemistry Section of the Laboratory of Molecular Biophysics to study arachidonic acid and linoleic acid metabolites as regulators of cell growth. These studies include the expression of prostaglandin H synthase and lipoxygenases in cell culture. Individuals with expertise and interest in Eicosanoid biochemistry, molecular biology, or signal transduction/mitogenesis are encouraged to apply. For more information, contact: **Dr. Thomas E. Eling, telephone: 919-541-3911.** Candidates with doctoral or equivalent degree in biochemistry, cell biology, molecular biology, physiology, pharmacology, or closely related field with up to 6 years of postdoctoral research experience will be considered. Salary commensurate with background. *U.S. citizenship not required.* To apply, send curriculum vitae and three letters of recommendation by 29 December 1989 to: **Dara Trupe (HNV15), NIEHS Personnel Office, P.O. Box 12233, Research Triangle Park, NC 27709. Telephone: 919-541-3317.** *NIH is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION MOLECULAR IMMUNOLOGY

A postdoctoral position is available February 1990 to study the development of the immune system using transgenic mice. Insertional mutagenesis via homologous DNA recombination in embryonic stem cells will be employed to generate mutant mouse strains. A background in molecular biology, immunology, or embryology would be advantageous. Send curriculum vitae and the names of three references, with telephone numbers, to: **Dr. Mark W. Moore, Kenneth Norris Jr. Comprehensive Cancer Center at the University of Southern California, P.O. Box 33804, 1441 Eastlake Avenue, Los Angeles, CA 90033-0804. FAX: 619-554-6139.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION: MOLECULAR GENETICS OF MEMBRANE ASSEMBLY. Immediate position open for candidate with a Ph.D. in biochemistry or molecular biology to study the mechanism by which phospholipids are translocated in eukaryotic cells or the role of phospholipids in membrane function and protein translocation in *Escherichia coli*. Current studies rely heavily on molecular genetic and biochemical approaches to understanding these problems. Apply with curriculum vitae and three letters of reference to: **William Dowhan, Ph.D., P.O. Box 20708, Department of Biochemistry and Molecular Biology, University of Texas Medical School, Houston, TX 77225.** *An Equal Opportunity/Affirmative Action Employer. Woman and minorities are encouraged to apply.*

POSTDOCTORAL POSITION

Participate in studies on the synaptic organization of the central auditory system. Experiments investigate the morphology related to binaural hearing. State-of-the-art methodology includes intracellular and extracellular recording, intracellular injections, axonal transport staining at the light and EM levels, and EM level immunocytochemistry. Many projects combine image processing and 3-D computer graphics in the analysis of neural morphology. Position is NIH-funded and requires a Ph.D. in neurobiology or equivalent. Previous experience in neuroanatomy or neurophysiology preferred. Send résumé and names of three references to: **Dr. Douglas L. Oliver, Department of Anatomy, The University of Connecticut Health Center, Farmington, CT 06032.**

Affirmative Action/Equal Opportunity Employer M/W/H.

POSTDOCTORAL POSITIONS UNIVERSITY OF FLORIDA

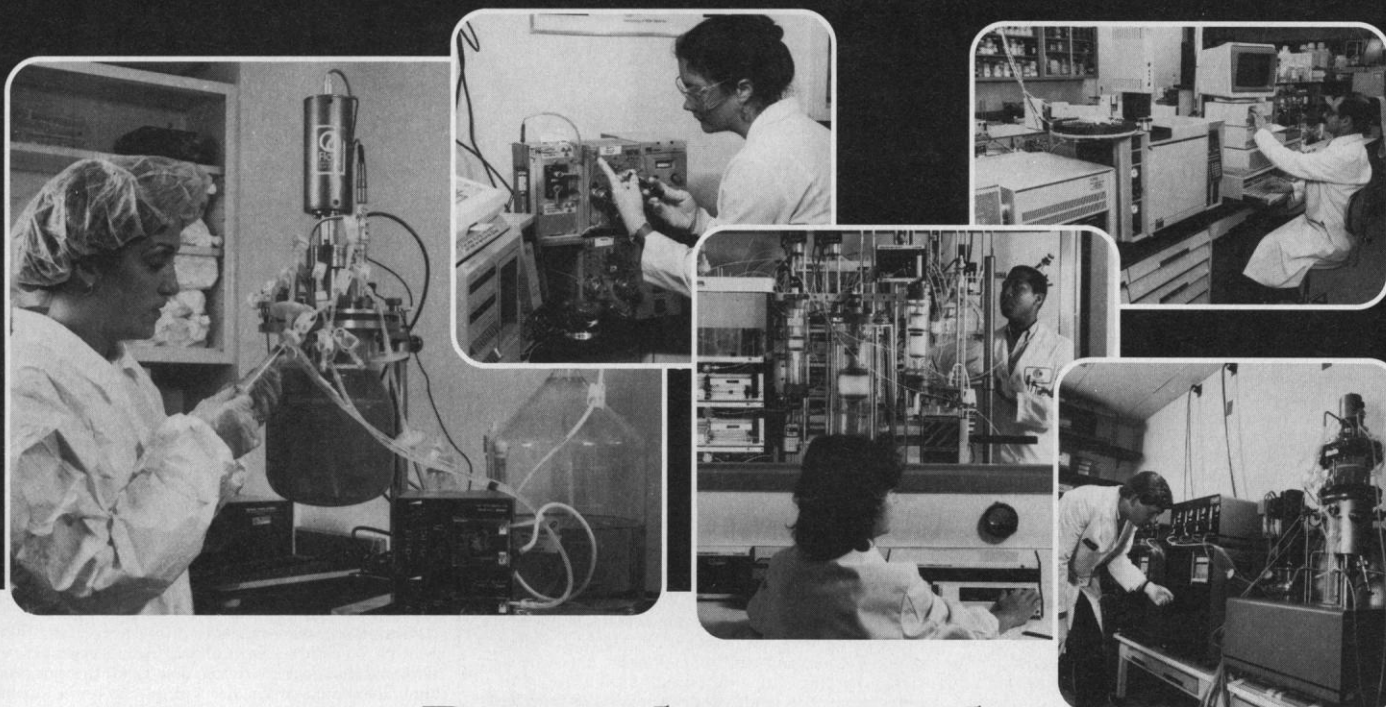
Several postdoctoral positions are available to study the molecular biology and immunology of the hemoparasites, *Babesia* and *Anaplasma*. Research projects involve aspects of: (i) Identification, cloning, characterization, and expression of genes encoding parasite antigens; (ii) molecular analysis of genetic, antigenic, and strain variation; (iii) immunization with experimental subunit vaccines based on cloned antigens; (iv) development of diagnostic assays of infection; and (v) characterization of the immune responses to these parasites. A Ph.D., D.V.M., or equivalent degree is required; experience in genetics, biochemistry, molecular biology, microbiology, or immunology is desirable.

Please send application, including curriculum vitae, statement of research goals, and three letters of reference, to: **Dr. D. R. Allred, Department of Infectious Diseases, Building 471, Mowry Road, 633 IFAS, University of Florida, Gainesville, FL 32611.** *The University of Florida is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE: Effects of nucleotide analog incorporation into DNA by human DNA polymerases. Applications are invited for a postdoctoral position to study the effects of nucleotide analog incorporation on rates of chain extension and occurrence of chain termination. The mechanism of such effects will be analyzed by steady-state kinetics and rapid reaction techniques. Candidates should have either advanced training in enzyme kinetics, or experience in working with DNA polymerases or related enzymes. To apply, send curriculum vitae and three references to: **Dr. R. L. Blakley, Chairman, Department of Biochemical and Clinical Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATES

The Vitamin and Mineral Nutrition Laboratory at the U.S. Department of Agriculture (USDA) Human Nutrition Research Center, has two positions available immediately in nutritional biochemistry. Research is directed towards study of (i) the transport and metabolism of nutrients by a differentiated human intestinal cell line (Dr. M. Failla) and (ii) effect of zinc status on synthesis of retinol-binding protein and hepatic vitamin A metabolism (Dr. J. C. Smith). Previous experience with cell culture techniques and cellular biochemistry is desired. Salary is \$28,852 (GS-11). Send résumé and names of three references to: **Dr. Mark Failla, USDA, VMNL, Bldg. 307, BARC-East, Beltsville, MD 20705. Telephone: 301-344-2148.** *The USDA is an Equal Opportunity Employer. Refer to numbers 9E016 and RA 89-8.*



Postdoctoral Research Program

Molecular Biology

Research in immunoglobulin gene expression and regulation. Engineering of antibodies to produce useful therapeutic products is a major focus. Experience in recombinant DNA techniques essential.

Immunobiology

Study of receptor/ligand interactions and development of human hybridomas for therapeutic applications. Projects are focused on the use of antibodies and peptides for the treatment of cardiovascular and autoimmune diseases.

Cell Culture Technology

Research in large scale production of hybridoma cells involving both cell biology and bioengineering techniques. Emphasis is on determination of the limiting steps in antibody biosynthesis and scale-up of mammalian cell culture.

Cancer Therapeutics

Opportunities in the cloning and characterization of cancer-associated antigens. Development of monoclonal antibodies and heterofunctional antibodies for cancer therapy.

Pharmacology

Basic studies in pharmacodynamics and molecular pharmacology involving antibody-based therapeutics. Particular focus is on experimental models of thrombosis, atherosclerosis, myocardial infarction, autoimmunity and rejection, and septic shock.

Centocor, a recognized leader in the biopharmaceutical industry specializing in monoclonal antibody medicine, is now undertaking a major new effort in support of Exploratory Research. We are seeking outstanding PhD scientists to participate in a newly created postdoctoral research program designed to give individuals in-depth research training under the direction of senior scientists within the Research and Development organization. Postdoctoral investigators will participate fully in a wide variety of scientific disciplines, attend and present their work at scientific conferences, and maintain close ties with the academic community.

Centocor offers an excellent salary, relocation and benefits package, as well as the opportunity to join a unique research environment that will provide comprehensive research training in a well-defined field. The company's headquarters, located 20 miles west of Philadelphia, provides modern, state-of-the-art R&D facilities. Centocor employs over 500 employees in the U.S., The Netherlands and Japan. Applicants from abroad welcome. An Equal Opportunity/Affirmative Action Employer.

Reply in confidence indicating the specific research program of interest: Harvey J. Berger, MD, President, Research & Development Division, Centocor, Inc., 244 Great Valley Parkway, Malvern, PA 19355.

 **Centocor**
Specializing in MAb Medicine

POSITIONS OPEN

AQUATIC ECOLOGY, POSTDOCTORAL VISITING LECTURER position available. Research involves study of biological control of Eurasian watermilfoil. Applicants should have experience in aquatic ecology; should be SCUBA certified by starting date, 1 June 1990. Successful applicant will also teach one undergraduate ecology course in the fall and assist with spring ecology laboratory. Anticipated 2-year position. Please send curriculum vitae, a statement of teaching and research interests, and the names of three references by 15 January 1990 to: **Dr. Sallie Sheldon, Department of Biology, Middlebury College, Middlebury, VT 05753. Telephone: 802-388-3711.**

POSTDOCTORAL POSITIONS available immediately to study signal transduction mechanisms triggered by murine macrophage surface receptors for IgG and various cytokines. Applicants with Ph.D. and/or M.D. should have a strong background in molecular immunology, gene cloning, and/or membrane biochemistry. Please send curriculum vitae and names of three references to: **Dr. Tsuneo Suzuki, Department of Microbiology, Molecular Genetics and Immunology, University of Kansas Medical Center, Kansas City, KS 66103.**

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.*

POSITIONS OPEN

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY AT NIH

Position available immediately to study the properties and behavior of the mammalian L1 (Line 1) transposable element. Candidate must be a U.S. citizen and have recently obtained a Ph.D. or equivalent with a background in molecular biology or biochemistry. Position is for 2 years with a 1-year extension possible. Please send curriculum vitae and names and addresses of three references to: **Dr. Anthony V. Furano, National Institutes of Health, Building 8, Room 203, 9000 Rockville Pike, Bethesda, MD 20892.**

NIH is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS in research hematology. The Hematology Division at The Johns Hopkins University School of Medicine has positions available for individuals with an M.D. or Ph.D. degree and an interest in hematology research (oncogenes, normal and neoplastic cell proliferation, coagulation, immunohematology, membrane proteins, genetic control of globin synthesis, red cell enzymes). *U.S. citizenship or permanent residency required.* Reply to: **J. L. Spivak, M.D., Hematology Division, The Johns Hopkins Hospital, Baltimore, MD 21205.** *Equal Opportunity/Affirmative Action Employer.*

ASSISTANT RESEARCH SCIENTIST IN X-RAY CRYSTALLOGRAPHY

The position will involve: equipment development and maintenance, program development, crystal growth and data collection, and structure solutions. Excellent x-ray crystallographic equipment exists and a number of interesting proteins are under study. Applications from scientists with background in small molecular crystallography are welcome. Review of applications will begin 15 January 1990 but applications will be accepted until the position is filled. Salary commensurate with experience. This is a state-funded, continuing eligible position. Candidates are eligible to secure grant funding for their research. *Minority and women candidates are urged to apply.* Submit curriculum vitae and three letters of reference to: **Dr. William Montfort, Department of Biochemistry, Biosciences West, University of Arizona, Tucson, AZ 85721.** *An Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION

A position is available for an NIH-funded study of **PROTECTIVE IMMUNITY IN FILARIASIS.** We are looking for an imaginative person with experience in recombinant DNA techniques to complement our ongoing program. Experience in parasitology is not essential. Send curriculum vitae and names of three references to: **Gary J. Weil, M.D., The Jewish Hospital at Washington University Medical Center, 216 South Kingshighway, St. Louis, MO 63110.**

RESEARCH ASSOCIATE

Brigham and Women's Hospital has an opening for a research associate to study electrophysiology of smooth muscle. Applicant should have experience with in vivo experimentation, chronic animal preparations, and basic physiological techniques. Experience with patch clamp technique welcome.

Candidates should have a Ph.D. in a related field and capacity for interdisciplinary research and growth. Please send résumé, letter of interest, and names of references to: **D. S. Sugarbaker, M.D., Department of Surgery, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115.**

RESEARCH ASSOCIATE DEPARTMENT OF PHARMACOLOGY UNIVERSITY OF MINNESOTA

Position available in the area of biochemical toxicology. A Ph.D. and three years of postdoctoral experience in biochemical toxicology are required to fill this position. Applicant should be familiar with purification of membrane-bound proteins and detoxification studies. Experience in the analysis of the above enzymes from a variety of tissues, including the brain, is also required. The applicant should have teaching experience, as some teaching will be required. Send curriculum vitae and names of three references by 31 December 1989 to: **Dr. Jordan Holtzman, Department of Pharmacology, 3249 Millard Hall, 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.

U.S. DEPARTMENT OF ENERGY

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The David Starr Jordan Prize for Innovative Contributions to the Study of Evolution, Ecology, Population or Organismal Biology

Stanford, Cornell and Indiana Universities have established a prize in honor of David Starr Jordan, a scientist, educator, and institution builder, with important ties to each of these institutions. The prize is international in scope, and is presented approximately every three years to a young scientist (less than 40 years of age) who is making novel, innovative contributions in one or more of the areas of Jordan's interests: evolution, ecology, population or organismal biology.

The intent of this prize is to recognize young scientists who are making research contributions likely to redirect the principal focus of their fields. The selection of the prize winner will be made by a committee composed of representatives from each of the three institutions. The recipient will receive a cash award and a commemorative medal at an awards ceremony at Stanford University. He or she will be invited to visit and give scholarly presentations at Stanford, Cornell and Indiana Universities.

The David Starr Jordan Award will carry a prize of \$15,000, and will be announced in the fall of 1990. Nomination forms are available from Dr. H. Craig Heller, Department of Biological Sciences, Stanford University, Stanford, CA 94305-5020. Nominations must be received prior to April 1, 1990.

CANCER EPIDEMIOLOGY AND BIostatISTICS FELLOWSHIP PROGRAM

NATIONAL CANCER INSTITUTE
NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE

PROGRAM INFORMATION

Fellowship applications from epidemiologists, biostatisticians and geneticists are being solicited by the Epidemiology and Biostatistics Program, Division of Cancer Etiology, National Cancer Institute, National Institutes of Health. This Program is the major research arm of the U.S. government for epidemiologic and biostatistical research in cancer etiology. It includes research on the distribution, causes, natural history and means of prevention of cancer, employing a variety of epidemiologic and multidisciplinary approaches to study environmental and host risk factors.

A Fellow may elect a temporary assignment to one of the laboratory-based programs in the Institute for training in experimental techniques relevant to epidemiologic studies having biochemical or molecular components. Fellows are accepted for one to three years of training. Positions will become available from May 1 through September 1, 1990. The awards range from \$17,000 to \$39,000 per annum, depending on the experience and qualifications of the applicant. Benefits include participatory health insurance, and selected relocation and travel expenses.

QUALIFICATIONS

The Cancer Epidemiology and Biostatistics Fellowship Program is available to highly qualified applicants with a variety of academic and research backgrounds including:

1. Physicians interested in epidemiologic and/or biostatistical research, particularly as it pertains to cancer etiology.
2. Ph.D. scientists interested in epidemiologic and/or biostatistical research in cancer. The doctoral degree should be in epidemiology, biostatistics, genetics, nutrition or other related disciplines.
3. Ph.D. candidates in doctoral programs in epidemiology, statistics or related areas, whose research at NCI could become the basis of dissertations. Approval of the candidates' university department would be required.
4. Masters-level scientists with a degree related to epidemiology or statistics, and who intend to pursue doctoral-level education in this field.

This program is limited to applicants whose last academic degree was awarded within three years, and who are U.S. citizens or resident aliens eligible for citizenship within four years. For more experienced investigators, a limited number of fellowships with a higher stipend range are available.

HOW TO APPLY

Please submit CV's with bibliography, SF-171 form, and three letters of recommendation to:

Joseph F. Fraumeni, Jr., M.D.
Epidemiology and Biostatistics Program
Division of Cancer Etiology
National Cancer Institute
Executive Plaza North, Room 543
Bethesda, MD 20892



Questions concerning the fellowship program should be directed to Dr. Michael Alavanja at (301) 496-1611

Deadline for receipt of applications: March 1, 1990

THE NATIONAL INSTITUTES OF HEALTH IS AN EQUAL OPPORTUNITY EMPLOYER.



Yale UNIVERSITY
The McKnight Foundation

Molecular Genetics of the Flowering Process

Graduate and Postdoctoral Fellowships

An interdisciplinary research program at Yale University sponsored by The McKnight Foundation.

Applications are invited for Graduate and Postdoctoral Fellowships to join an interdisciplinary research program undertaken by ten faculty members in three departments at Yale University (Biology, Molecular Biophysics & Biochemistry, and Forestry & Environmental Studies).

Ongoing projects include the following:

- genetic analysis of cell-cell interactions in floral structures
- mutational and molecular fine-structure analysis of floral genes
- ectopic expression of growth regulators in the flowering process

The training program also includes technical workshops, seminar programs, and extensive collaborative work.

Graduate applicants must apply to the Director of Graduate Studies, Department of Biology, P.O. Box 6666, Yale University, New Haven, CT 06511 U.S.A., Telephone: (203) 432-3538 by January 3, 1990.

Postdoctoral applicants should apply directly to the Project Coordinator with CV, three letters of reference, and a research interest statement. Postdoctoral fellows will be encouraged to develop independent collaborative projects on flowering.

For further information, contact Prof. Ian Sussex (Project Coordinator), Yale Biology Department, P.O. Box 6666, New Haven, CT 06511 U.S.A.

Yale University is an Affirmative Action / Equal Opportunity Employer.

Nutrition Research

The Procter & Gamble Company in Cincinnati, Ohio is seeking to fill entry-level openings in nutrition research. Successful candidates will have a Ph.D. degree in biochemistry or nutrition with an emphasis in lipid, vitamin or mineral nutrition. Preference will be given to individuals who have conducted animal or human investigations in these areas. Postdoctoral experience is desirable but not required. Good written and oral communication skills are also important requirements.

Besides offering a stimulating environment for professional and personal growth, we offer a fringe benefit package (medical, dental, profit sharing) that ranks in the top 50% of U.S. corporations.

Candidates must be presently authorized to work in the U.S. on a full-time basis. Resumes, with a list of publications, should be sent to:

**Dr. T. J. Logan, Manager
Ph.D. Recruiting
Nutrition Research Positions
The Procter & Gamble Company
Miami Valley Laboratories
P.O. Box 398707
Cincinnati, Ohio 45239-8707**

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Procter & Gamble

Postdoctoral Research Fellow

We are seeking an individual with a Ph.D. degree or equivalent in Molecular Biology or Biochemistry to participate in research on regulation of gene transcription with particular emphasis on the family of mammalian glucose transporter genes. A strong background in the study of cis and trans regulatory elements is desirable.

Merck Sharp and Dohme Research Laboratories is located in Rahway, New Jersey approximately 25 miles from New York City. Our salaries, benefits and growth potential are excellent. For consideration, send your resume with the names of three references to **Sandra Gong, Merck & Co., Inc., P.O. Box 2000, Rahway, New Jersey 07065.**

Equal Opportunity Employer



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MINORITY MEDICAL RESEARCH FELLOWSHIPS

The Minority Medical Faculty Development program, sponsored by The Robert Wood Johnson Foundation, has up to eight new positions available beginning 1991. The program offers postdoctoral research fellowships to physicians from under-represented minority groups as defined by the Association of American Medical Colleges. These individuals must have demonstrated superior academic and clinical skills and have committed themselves to careers in academic medicine and biomedical research. The fellowship supports four consecutive years of laboratory research. Each Fellow selected will receive an annual stipend of up to \$50,000 and a \$25,000 annual grant toward support of research activities.

In addition to the above eligibility requirements, applicants must be U.S. citizens and must have completed their formal clinical training by the projected time of entry into the program.

Applications for appointment in 1991 must be submitted by April 30, 1990. Interviews with selected applicants will be carried out in July 1990, and successful candidates will be notified in December 1990.

For further information and application materials, contact:

Harold Amos, Ph.D., Program Director or
Charlotte Litt, Ph.D., Deputy Director
Dept. of Microbiology and Molecular Genetics,
Harvard Medical School
Minority Medical Faculty Development Program
P.O. Box 446
Brookline, MA 02147
Telephone: 617-732-1947

POSITIONS OPEN

RESEARCH ASSOCIATE to conduct independent studies on the molecular biology of human pancreatic tumors. Requires a Ph.D. in biochemistry or biological science with a minimum of 2 years of postdoctoral experience in molecular genetics and protein purification, including establishment of cDNA libraries, use of serological techniques, gene and protein sequencing, and expression. Salary: \$19,600, 40 hours per week. If not a U.S. citizen, state current visa class. Apply to: **Employment Security Commission, 506 North Mangum Street, Durham, NC 27701** or your nearest job service office. Refer to job order **#NC 3090641, DOT code 090.227-010.** *Affirmative Action/Equal Opportunity Employer.*

RESEARCH VETERINARY MEDICAL OFFICER, D.V.M. Duties: to supervise the care and use of experimental animals; diagnose/treat illnesses. Must be familiar with regulations/guidelines for the care and use of experimental animals. Must have knowledge of the pathogenesis of local and systemic mycobacterial diseases in laboratory animals. Salary: \$41,121 per year. Contact: **GWL Hansen's Disease Center, Personnel Department, Carville, LA 70721. Telephone: 504-642-4792.** Closes: 29 December 1989. *Equal Opportunity/Affirmative Action Employer.*

TOXICOLOGISTS

The California Department of Food and Agriculture seeks staff toxicologists and associate toxicologists in its pesticide regulatory program. Incumbents will evaluate toxicology studies and/or conduct risk assessments. Positions exist for individuals with masters and/or doctorate degrees in toxicology, pharmacology, biochemistry, or a related field with suitable experience in animal toxicology. Salary range begins at \$4229 per month for staff toxicologist and \$3192 per month for associate toxicologists. Comprehensive benefits package. Continuous testing, oral exam required. Submit résumés to:

**Department of Food and Agriculture
Examinations Unit
1220 N Street, Room 154
Sacramento, CA 95814**

FELLOWSHIPS

The Division of Geological and Planetary Sciences at the California Institute of Technology expects to offer **POSTDOCTORAL RESEARCH FELLOWSHIPS** in one or more of the following areas: geology, geophysics, geochemistry, cosmochemistry, and planetary sciences. Interested individuals should send their résumés to: **The Division Chairman, Division of Geological and Planetary Sciences (170-25), California Institute of Technology, Pasadena, CA 91125.** *An Equal Opportunity/Affirmative Action Employer.*



Tourette Syndrome Association, Inc.

ANNOUNCES....

RESEARCH GRANTS AND FELLOWSHIPS

Basic Neurosciences	\$ 5,000 to \$25,000
Clinical Studies	\$ 5,000 to \$25,000
Postdoctoral Fellowship	\$15,000 to \$20,000

Write to: **Tourette Syndrome Association, 42-40S Bell Boulevard, Bayside, NY 11361.**

Letter of intent due: 15 January 1990

Final proposal due: 15 April 1990

Please note: The Tourette Syndrome Association, Inc. does not provide any overhead or indirect costs.

TARGETED CYTOTOXINS

POSTDOCTORAL FELLOWS to engage in anti-tumor research involving the construction of targeted cytotoxins with a binding site-deleted catalytic toxin. Hybridoma technology, cell culture, protein chemistry, other biochemical techniques, in vitro and in vivo experimentation. Bright, adaptable, adventuresome scientists with backgrounds in quantitative biology preferred. Contact: **C. L. Vilemez, Department of Molecular Biology, University of Wyoming, University Station, Box 3944, Laramie, WY 82071-3944. Telephone: 307-766-6443.** *An Equal Opportunity/Affirmative Action Employer.*

FELLOWSHIPS

GI/LIVER PATHOLOGY FELLOWSHIP. The Hines Veterans Administration Hospital/Loyola University, Chicago, integrated postgraduate teaching program offers a 1-year fellowship in all aspects of gastrointestinal and liver pathology. Diagnostic services with emphasis on clinical correlations and support of patient care qualify this program for the fifth, clinically related, year of training required by the American Board of Pathology for certification in anatomic and clinical pathology. In addition, support for research includes access to and integration with immunopathology, electron microscopy, cytometry (flow and image), and molecular pathology laboratories. Send curriculum vitae and bibliography to: **G. Chejfec, M.D., Laboratory Service, Hines VA Hospital (113), Hines, IL 60141.**

ASSISTANTSHIPS

GRADUATE RESEARCH ASSISTANTSHIPS

Research assistantships in Florida in chemical engineering, environmental engineering, and environmental science at Florida Institute of Technology (FIT). Stipends and tuition waivers available in a number of areas: environmental chemistry, waste management, waste stabilization, groundwater contamination, limnology, and stormwater runoff. Nine-month salary stipends range from \$4200 to \$6300 for M.S. and \$5100 to \$8100 for Ph.D. students, depending on qualifications. Please contact:

**Dr. N. T. Stephens
Professor and Head
Chemical and Environmental
Engineering, FIT
Melbourne, FL 32901**

COURSES

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.**

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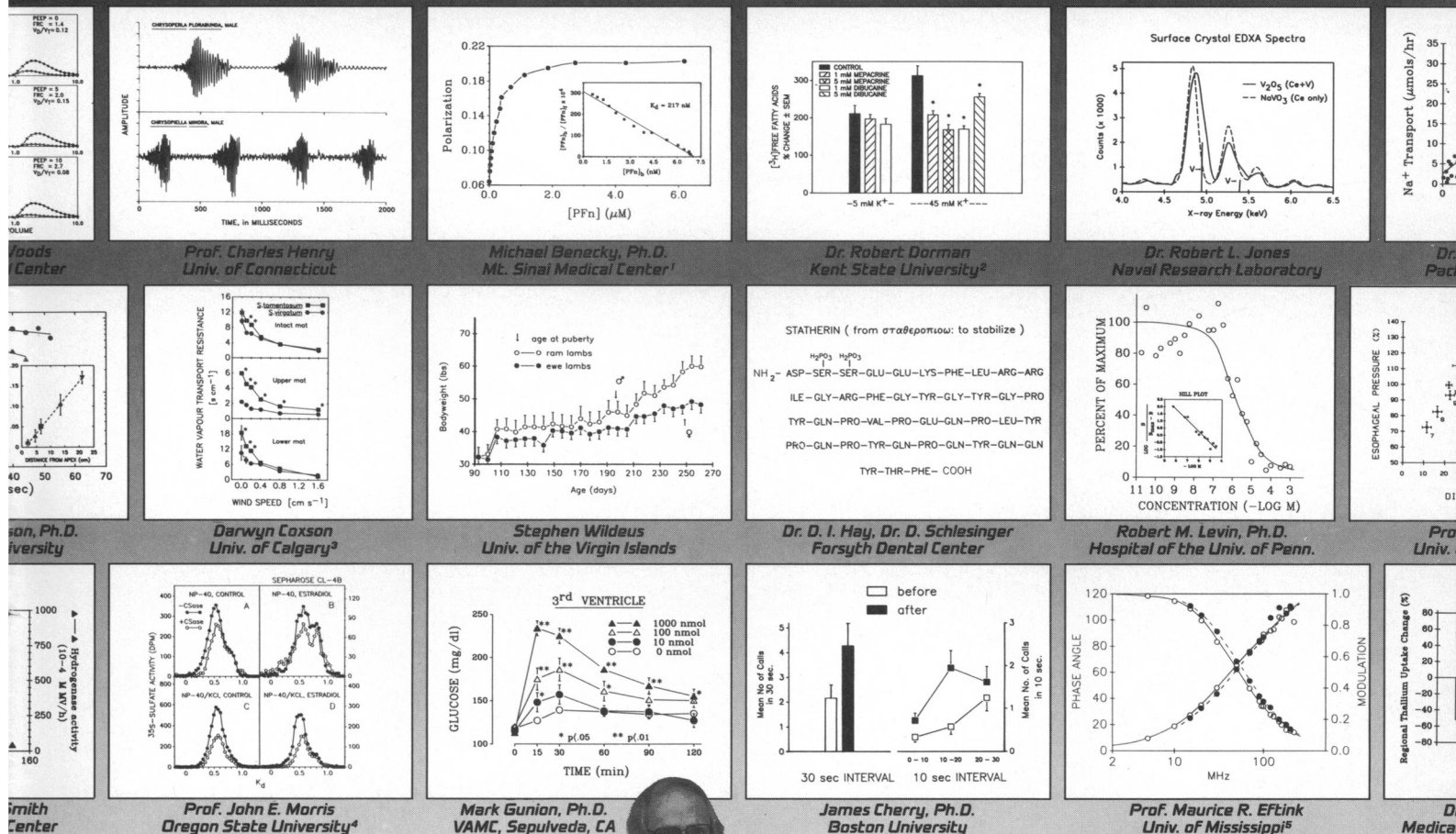
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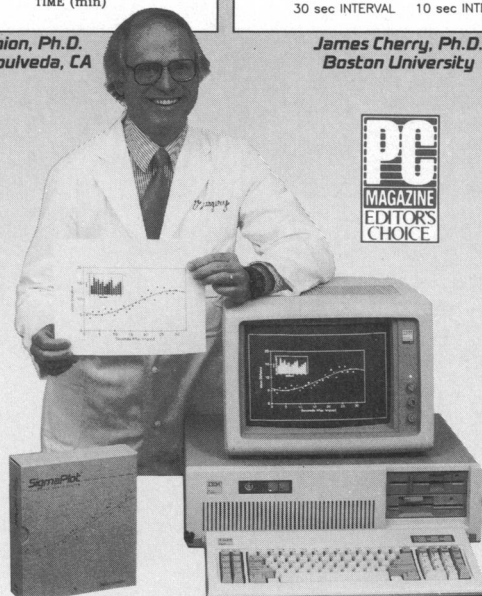
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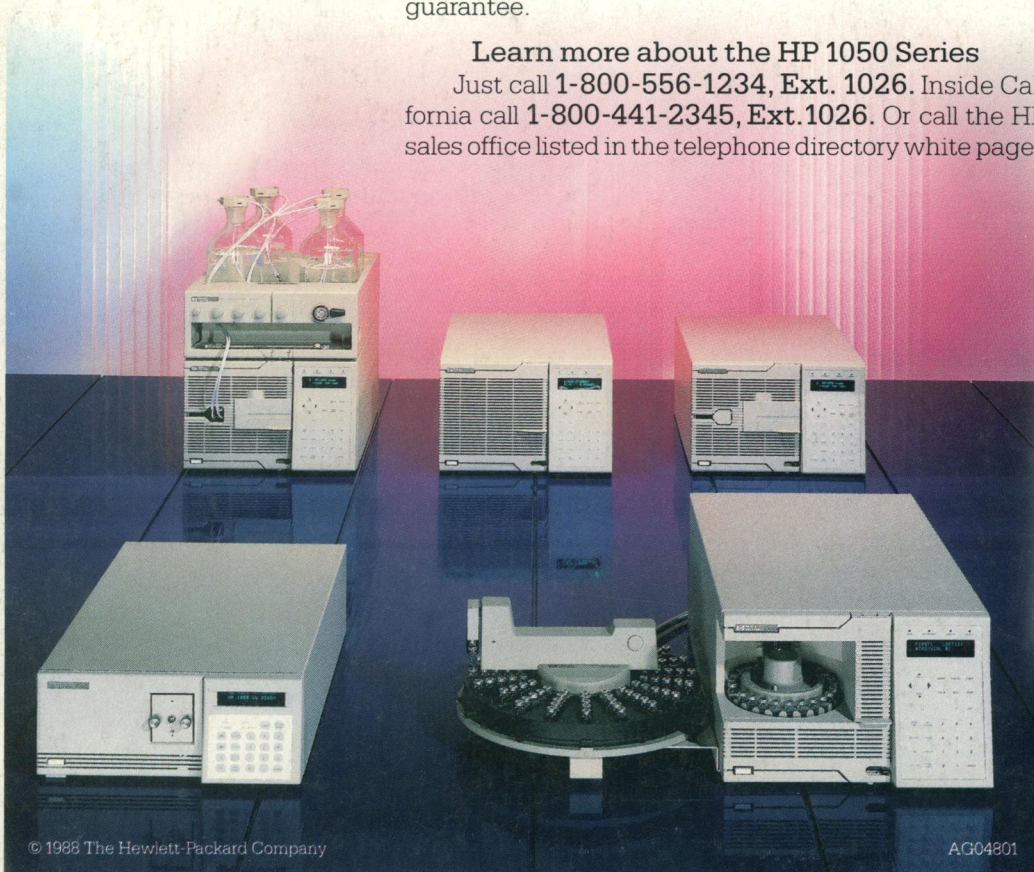
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