

and rapid dropoff of brightness, these galaxies are featureless. They show none of the spectacular gas, dust, and spiral features of their better-known cousins, the spiral galaxies. The simple appearance is deceptive; while they are tantalizing objects of theoretical study, they have stubbornly resisted attack by that means. Nearly all of the mass resides in stars, which move about something like the molecules of a gas except that they never collide. Each galaxy is kept from flying apart by the gravitational force generated by the mass of its stars, and it is kept from collapsing by the "pressure" exerted by the motions of the stars. The two forces are balanced in a steady-state galaxy, and this delicate balance fairly shouts the likelihood of instabilities. Strong radio sources (usually double-lobed, extending far beyond the visible galaxy) lurk in some, x-ray sources in others. A crescendo of beautiful observational results continues, showing elliptical galaxies to be much richer and more complex than we had imagined.

The conference from which this book derives was organized principally because of some equally beautiful theoretical results: the exploitation of a particular class of separable potentials by de Zeeuw to build steady-state equilibrium models. The book has a good balance of observational and theoretical reviews that cover most current topics. Observations of x-rays indicating lots of very hot gas (10 percent of the galaxy's mass, around 10 million degrees) demonstrate properties no one dreamed that elliptical galaxies possessed just a few years ago. Like most volumes of conference proceedings, this one presents a good picture of what people were thinking about at the time. Like most, it will soon be dated. There are some omissions or blind spots. Elliptical galaxies are assumed throughout to be static. They might instead be oscillating about an equilibrium state, a likely circumstance that is not even mentioned. A second surprise is the comment in one review that the discovery of instabilities came as a shock; they should have been expected.

Translations of several Soviet contributions on self-consistent theoretical models and on stability studies are included. This is a nice feature that will have lasting value. Some are classics that have not been generally available in the West. There are also one or two really good surveys, such as that of de Zeeuw, which gives a very complete overview of methods available for constructing self-consistent equilibrium models. The book will be useful to experts who want to be reminded of what is known observationally and what problems are attracting theo-

retical attention. It will also be useful to graduate students wondering what research possibilities elliptical galaxies present.

RICHARD H. MILLER  
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## Reprints of Books Previously Reviewed

**The Darwinian Heritage.** David Kohn, Ed. Princeton University Press, Princeton, NJ, and Nova Pacifica, 1988. Paper, \$25. Reviewed **235**, 224 (1987).

**On Aesthetics in Science.** Judith Wechsler, Ed. Birkhäuser Boston, Cambridge, MA, 1988. \$19.50. Reviewed **205**, 295 (1979).

## Books Received

**Bereavement and Health.** The Psychological and Physical Consequences of Partner Loss. Wolfgang Stroebe and Margaret S. Stroebe. Cambridge University Press, New York, 1987. xii, 288 pp., illus. \$44.50; paper, \$15.95.

**Collider Physics.** Vernon Barger and Roger Phillips. Addison-Wesley, Redwood City, CA, 1987. xxiv, 592 pp., illus. \$44.95. Frontiers in Physics, vol. 71.

**Colonization, Succession and Stability.** A. J. Gray, M. J. Crawley, and P. J. Edwards, Eds. Blackwell Scientific, Palo Alto, CA 1987. xii, 482 pp., illus. \$70. From a symposium, Southampton, U.K., 1984.

**Comparative Aspects of Extracellular Acid-Base Balance.** Jean-Paul Truchot. Springer-Verlag, New York, 1987. xiv, 248 pp., illus. \$124.60. Zoophysiology, vol. 20.

**Computers and Telecommunications Networks.** Michael Pursur. Blackwell Scientific, Palo Alto, CA, 1987. viii, 323 pp., illus. \$70; paper, \$38. Professional and Industrial Computing Series.

**Drugs in Adolescent Worlds.** Burnouts to Straights. Barry Glassner and Julia Coughlin. St. Martin's, New York, 1987. x, 301 pp. \$29.95.

**The Expert Witness Survival Manual.** Frank J. MacHovec. Thomas, Springfield, IL, 1987. xiv, 171 pp. \$29.75.

**Francis Bacon's Philosophy of Science.** An Account and a Reappraisal. Peter Urbach. Open Court, La Salle, IL, 1987. x, 209 pp. Paper, \$9.95.

**Genetic Takeover and the Mineral Origins of Life.** A. G. Cairns-Smith. Cambridge University Press, New York, 1987. x, 477 pp., illus. Paper, \$24.95. Reprint, 1982 ed.

**Geomorphology and Reclamation of Disturbed Lands.** Terence J. Toy and Richard F. Hadley. Academic Press, Orlando, FL, 1987. xvi, 480 pp., illus. \$59.

**Individual Differences in Hemispheric Specialization.** A. Glass, Ed. Plenum, New York, 1987. x, 406 pp., illus. \$75. NATO Advanced Science Institutes Series A, vol. 130. From a workshop, Maratea, Italy, Oct. 1984.

**Intention, Plans, and Practical Reason.** Michael E. Bratman. Harvard University Press, Cambridge, MA, 1987. xii, 200 pp. \$25.

**The Intentional Stance.** Daniel C. Dennett. MIT Press, Cambridge, MA, 1987. xii, 388 pp. \$25. A Bradford Book.

**Introduction to Remote Sensing.** James B. Campbell. Guilford, New York, 1987. xxiv, 551 pp., illus. \$49.95.

**The Medics' War.** Albert E. Cowdrey. U.S. Army Center of Military History, Washington, DC, 1987 (available from the Superintendent of Documents, Washington, DC). xviii, 391 pp., illus., + foldout charts. Paper, \$21. United States Army in the Korean War, vol. 4.

**Megagauss Technology and Pulsed Power Applications.** C. M. Fowler, R. S. Caird, and D. J. Erickson, Eds. Plenum, New York, 1987. xvi, 879 pp., illus. \$115. From a conference, Santa Fe, NM, July 1986.

**Metamorphosis.** Stages in a Life. David Suzuki. Stoddart, Toronto, 1987. 302 pp. + plates. \$24.95. An autobiographical work by the geneticist and CBC broadcaster.

**New Trends in Colloid Science.** H. Hoffmann, Ed. Steinkopff, Darmstadt, and Springer-Verlag, New York, 1987. viii, 203 pp., illus. \$63. Progress in Colloid and Polymer Science, vol. 73. Based on a workshop, Como, Italy, Oct. 1986.

**The Nobel Population, 1901-1937.** A Census of the Nominators and Nominees for the Prizes of Physics and Chemistry. Office for History of Science and Technology, University of California, Berkeley, CA, and Office for History of Science, Uppsala University, Uppsala, Sweden, 1987. 337 pp. Paper, \$20. Berkeley Papers in History of Science, 11; Uppsala Studies in History of Science, 4.

**Nondestructive Characterization of Materials II.** Jean F. Bussière *et al.*, Eds. Plenum, New York, 1987. xiv, 790 pp., illus. \$115. From a symposium, Montreal, Quebec, July 1986.

**The Overview Effect.** Space Exploration and Human Evolution. Frank White. Houghton Mifflin, Boston, 1987. xviii, 318 pp. \$18.95.

**Perinatal Medicine.** Problems and Controversies. G. C. Di Renzo and D. F. Hawkins, Eds. Cortina, Verona, 1986 (U.S. distributor, Raven, New York). xvi, 221 pp., illus.

**Pesticides on Plant Surfaces.** Helen J. Cottrell, Ed. Published for the Society of Chemical Industry by Wiley, New York, 1987. xiv, 86 pp., illus. \$41.95. Critical Reports on Applied Chemistry, vol. 18.

**The Pharmacology and Toxicology of Proteins.** John S. Holcenberg and Jeffrey L. Winkelhake, Eds. Liss, New York, 1987. xviii, 381 pp., illus. \$70. UCLA Symposia on Molecular and Cellular Biology, vol. 65. From a symposium, Lake Tahoe, CA, Feb. 1987.

**Reactions of Acids and Bases in Analytical Chemistry.** Adam Hulanicki. Horwood, Chichester, U.K.; PWN, Warsaw; and Halsted (Wiley), New York, 1987. 308 pp., illus. \$122.95. Ellis Horwood Series in Analytical Chemistry. Translated from the Polish edition (Warsaw, 1980).

**Recent Advances in Leukemia and Lymphoma.** Robert Peter Gale and David W. Golde, Eds. Liss, New York, 1987. xxiv, 597 pp., illus. \$110. UCLA Symposia on Molecular and Cellular Biology, vol. 61. From a symposium, Keystone, CO, Jan. 1987.

**Recent Advances in Mucosal Immunology.** Two volumes. Part A, Cellular Interactions. Jiri Mestecky *et al.*, Eds. xl pp. + pp. 1-876, illus., + index. \$110. Part B, Effector Functions. Jerry R. McGhee *et al.*, Eds. xxxiv pp. + pp. 877-1897, illus. \$135. Plenum, New York, 1987. Advances in Experimental Medicine and Biology, vols. 216A and 216B. From a congress, Niagara Falls, NY, June-July 1986.

**Reclaimed Powers.** Toward a New Psychology of Men and Women in Later Life. David Gutmann. Basic Books, New York, 1987. xii, 335 pp., illus. \$24.95.

**Regulated Streams.** Advances in Ecology. John F. Craig and J. Bryan Kemper, Eds. Plenum, New York, 1987. xii, 431 pp., illus. \$79.50. From a symposium, Edmonton, Alberta, Aug. 1985.

**Sediment Transport in Gravel-Bed Rivers.** C. R. Thorne, J. C. Bathurst, and R. D. Hey, Eds. Wiley-Interscience, New York, 1987. xvi, 995 pp., illus. \$170. From a workshop, Fort Collins, CO, Aug. 1985.

**Speed of Information-Processing and Intelligence.** Philip A. Vernon, Ed. Ablex, Norwood, NJ, 1987. x, 406 pp., illus. \$29.50.

**Spermatogenesis.** Genetic Aspects. W. Hennig, Ed. Springer-Verlag, New York, 1987. x, 130 pp., illus. \$59.50. Results and Problems in Cell Differentiation, vol. 15.

**Structure and Dynamics of Surfaces II.** Phenomena, Models, and Methods. W. Schommers and P. von Blanckenhagen, Eds. Springer-Verlag, New York, 1987. xiv, 391 pp., illus. \$64. Topics in Current Physics, vol. 43.

**Symmetries of Maxwell's Equations.** W. I. Fushchich and A. G. Nikitin. Reidel, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xiv, 214 pp. \$74. Mathematics and Its Applications. Translated from the Russian edition (Kiev, 1983).

**Thalidomide Embryopathy in Japan.** Mitsuchiro Kida, Ed. Kodansha, Tokyo, 1987. xii, 276 pp., illus. ¥12,000.

**The Toxicology of Molluscicides.** G. Webbe, Ed. Pergamon, Elmsford, NY, 1987. x, 167 pp., illus. \$90. International Encyclopedia of Pharmacology and Therapeutics, section 125.

**The Truly Disadvantaged.** The Inner City, the Underclass, and Public Policy. William Julius Wilson. University of Chicago Press, Chicago, 1987. xii, 254 pp., illus. \$19.95.

**The Universe.** Byron Preiss, Ed. Spectra (Bantam), New York, 1987. 335 pp., illus. \$24.95.

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## POSITIONS WANTED

**Immunologist/Geneticist, Ph.D.** Hybridoma, immunoassay, cell culture, recombinant DNA experience. Seeking position in New York City, New Jersey, Pennsylvania. Box 62, **SCIENCE**.

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## POSITIONS OPEN

### ADJUNCT RESEARCH INSTRUCTOR

To perform experiments to determine the role of hormones, especially insulin, in fungal growth and development. cDNA clones will be isolated and sequenced, and effects of gene disruption and amplification will be studied. Prior experience in fungal molecular genetics required. Reply to: **John Lenard, Ph.D., Department of Physiology and Biophysics, UMDNJ-Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635. An Equal Opportunity/Affirmative Action Employer, M/F/H/V.**

**ASSISTANT PROFESSOR.** We announce the availability of a non-tenure tracking faculty position to be filled, contingent on the availability of funds, after 1 September 1988. The position will include a cross-appointment in the Department of Medical Biochemistry and the Department of Chemistry and Biochemistry. Responsibilities include development of an active research program, complementary with existing programs in biophysics and/or molecular biology, with an emphasis on either (i) the mechanism of muscle contraction, or (ii) protein and DNA structure and interactions. Facilities include a new NMR laboratory equipped with both wide-bore 300-MHz and narrow-bore 500-MHz NMR instruments. Teaching responsibilities include undergraduate and/or graduate teaching in biochemistry. Minimum qualifications are a Ph.D. degree and postdoctoral training. The official title for this position is visiting assistant professor. The salary is competitive, with a 75% fiscal year assignment allowing an increase with external funding. It is renewable up to 5 years. Interested candidates should send curriculum vitae, an outline of interests, and three letters of reference, preferably before 1 July 1988 to: **Dr. John Shriver, Department of Medical Biochemistry, School of Medicine, Southern Illinois University, Carbondale, IL 62901. Telephone: 618-453-5721. Southern Illinois University at Carbondale is an Equal Opportunity/Affirmative Action Employer.**

Position available for **ASSISTANT RESEARCH BIOCHEMIST** to operate a Molecular Biology Core Facility. Core activities center on molecular genetics and DNA technology, including DNA preparation, probe labeling, hybridization, and DNA sequencing services for project units. Ph.D. required in a molecular biology field combined with experience in recombinant DNA technology and sequencing required. Salary related to rank and step of appointment within the UCSD salary scale. Send curriculum vitae and names of three references by 1 June 1988 to: **Donald G. Guiney, M.D., Department of Medicine, H-811-F, UCSD Medical Center, 225 Dickinson Street, San Diego, CA 92103. Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

**ASSISTANT PROFESSOR—INSECT PEST MANAGEMENT/VEGETABLES.** (Extension/research). Tenure-track. Duties include extension (60%)—demonstration and implementation of insect pest management programs. Research (30%)—management of major insect pests of vegetables. Teaching (10%)—seminar course in insect pest management. Full position description available. Qualifications include Ph.D. in entomology or related discipline with training in insect pest management. Forward: (i) letter describing qualifications and interest, (ii) curriculum vitae, (iii) list of publications (include reprints), (iv) transcripts (post-secondary education), (v) names and addresses of three references to: **R. A. Morse, Chair, Department of Entomology, Cornell University, Comstock Hall, Ithaca, NY 14853-0999.** Application deadline is 1 August 1988. *Cornell is an Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR OF PHYSIOLOGY

Applications are solicited for a non-tenure-stream position for a person to be responsible for conducting research on the regulation of cardiac function using nuclear magnetic resonance. Postdoctoral education should include training in: isolation and perfusion of rodent hearts, use of shift reagents and other techniques to study cations and a strong knowledge of the principles and operation of nuclear magnetic resonance equipment. Position to be filled by October, 1988. Mail curriculum vitae and name of at least three references to: **Physiology NMR Search Committee, Department of Physiology, Michigan State University, East Lansing, MI 48824-1101. MSU is an Equal Opportunity/Affirmative Action Employer.**

### UNIVERSITY OF CALIFORNIA SAN FRANCISCO (UCSF) DEPARTMENT OF PSYCHIATRY ASSISTANT PROFESSORS NEUROGENETICS OR PSYCHOPHARMACOLOGY

The Department of Psychiatry at UCSF is seeking junior faculty members with established records of research in the genetics of psychiatric disorders or in psychopharmacology. Up to two appointments will be made in each area at the assistant professor level. Candidates trained in both psychiatry and a laboratory science are preferred, but Ph.D.'s with relevant experience will be considered. The positions are backed by State-funded salary lines either via tenure-track appointment in the School of Medicine or via the Langley Porter Psychiatric Institute. Newly developed laboratory facilities and start-up funds will be provided and joint appointments in relevant basic science departments or programs will be offered if appropriate. Positions will be available on or before July 1989 and applications should be received by 1 September 1988. *UCSF is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.* Please reply to: **Search Committee GEN or Search Committee PHARM c/o Samuel Barondes, Chair, Department of Psychiatry, UCSF, San Francisco, CA 94143-0984.**

**ASSISTANT RESEARCH SCIENTIST,** Westbury, New York. Design of pressurized fluidized bed combustor facility sub-systems including heat recovery systems; utilization of data acquisition system; performance analysis including combustion efficiency, heat transfer and particulate emissions; in-depth study of fluidized bed hydrodynamics, agglomeration, and erosion of in-bed heat exchanger tubes. Requires M.S. in energy science, and 3 years of experience in areas above or as product engineer involved with design and performance testing of coal combustion systems and boilers. Forty hours per week, 7:30 a.m. to 4:00 p.m. Salary: \$28,884 per annum. Send résumé in duplicate to: **RG#213, Room 501, One Main Street, Brooklyn, NY 11201.**

**ASSISTANT/ASSOCIATE PROFESSOR.** Ph.D. or equivalent degree with proven excellence in research. Research topics of particular interest are cellular/molecular regulation of membrane proteins, cell differentiation and/or development. Interest and ability in teaching is essential. Send curriculum vitae and three references to: **J. Hume, Ph.D., Department of Physiology, University of Nevada School of Medicine, Reno, NV 89557.** Closing date 1 July 1988 or until position filled. *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

The Department of Pharmacology, Georgetown University School of Medicine invites applications for two tenure-track positions at the **ASSISTANT PROFESSOR** level and one tenure-track position at the **ASSOCIATE PROFESSOR** level. Candidates for the assistant professor positions should hold a doctoral degree in pharmacology or related discipline, and have completed at least 2 years of postdoctoral training. Evidence of productive research in a major area of pharmacology and the potential to attract external funds for their research are of prime importance in the selection process. Candidates for the associate professor position should be 4 to 7 years beyond their postdoctoral training, and have a record of independent productive research in a major area of pharmacology as evidenced by publications and external funding of their research. Preference will be given to candidates with research training and interests in cardiovascular pharmacology or molecular neuropharmacology. Applicants should submit curriculum vitae, a one-page statement of research goals, and the names, addresses, and telephone numbers of three references to: **Search Committee, c/o Dr. Arthur Raines, Department of Pharmacology, Georgetown University School of Medicine, Washington, DC 20007.** The closing date for applications is 1 August 1988. *Georgetown University is an Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT/ASSOCIATE PROFESSOR MOLECULAR ONCOLOGIST THE UNIVERSITY OF MINNESOTA

The Division of Medical Oncology, Department of Medicine and the Institute of Human Genetics invite applications for a joint, tenure-track, or tenured faculty position. Excellent laboratory space will be located within the Institute of Human Genetics to enable the candidate to establish an independent and interactive research program. Preference will be given to individuals whose research interests include cellular oncogenes. The applicant will be expected to participate in graduate, clinical, and basic science training with clinical responsibilities on the Oncology Inpatient and Outpatient Service. Qualifications for tenured associate professor include an established research program and demonstrated effectiveness in teaching and advising. Qualifications for probationary assistant professor include productive research experience. Qualified applicants must have an M.D., have completed a 3-year medicine residency, a 2-year oncology fellowship, and be Board-certified in internal medicine, and Board-eligible or certified in medical oncology. To apply, send curriculum vitae, a description of research interests, and three letters of reference by 30 June 1988 to: **Clara Bloomfield, M.D., Division of Oncology, Box 177, UMHC, Minneapolis, MN 55455.**

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

### DEPARTMENT OF PERIODONTICS THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO ASSISTANT/ASSOCIATE PROFESSOR POSITION

A tenure-track faculty position is available in the Department of Periodontics, the University of Texas Health Science Center at San Antonio, at the assistant or associate professor level for an individual whose research interests are in studies of mammalian cell function, including molecular and cellular immunology, inflammation and/or bone biology. Ph.D., D.M.D., D.D.S., or M.D. degree required. Appointee will join an active department whose primary research interests are in microbiological-immunological studies of periodontal disease, the effects of aging on the periodontal disease process, and animal models of periodontal disease. The department has close research affiliations with basic science and medical departments which offers the potential for joint appointment. This position has also the opportunity for clinical associations. Interested applicants should send curriculum vitae and the names, addresses and telephone number of three referees by 1 August 1988, to: **The Chair of the Search Committee, Dr. Linda McManus, Associate Professor, Department of Pathology, 7703 Floyd Curl Drive, San Antonio, TX 78284.**

*The University of Texas Health Science Center at San Antonio is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**ASSISTANT RESEARCH SCIENTIST**, Westbury, New York. Design and development of pollutant measurement devices and schemes in high pressure, fossil fuel (fluidized bed) combustors for on-line monitoring of flue gas streams; perform data reduction, analyze and report research findings by comparing with emissions from other coal-fired energy systems; develop and recommend chemical process parameters to maintain and/or reduce pollutant emissions in coal-fired pressurized, fluidized bed combustors. Requires M.S. in energy science, and 3 years of experience in areas above or 3 years of experience in research position in fluidized bed combustor. Forty hours per week, 7:30 a.m. to 4:00 p.m. Salary: \$28,884 per annum. Send résumé in duplicate to: **RG#212, Room 501, One Main Street, Brooklyn, NY 11201.**

**ASSISTANT RESEARCH SCIENTIST/POST-DOCTORAL RESEARCH POSITION** will be available 1 September 1988 to study molecular aspects of chloroplast biogenesis. Applications are sought from individuals with backgrounds in molecular, biophysical, and/or cellular biology techniques and who are interested in development of photosynthetic complexes. Applications and three letters of recommendation should be sent before 15 June 1988 to: **Dr. Gregory W. Schmidt, Department of Botany, University of Georgia, Athens, GA 30602.**

### ASSISTANT/ASSOCIATE PROFESSOR OF NEUROPATHOLOGY UNIVERSITY OF MINNESOTA DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY

Faculty position available in neuropathology at rank of assistant or associate professor, depending on qualifications. Applicant will be expected to head a vigorous research program in neurobiology. Minimum requirements are M.D., BC/BE in anatomic pathology and neuropathology subspecialty with 2 years (assistant professor) or 5 years (associate professor) of experience in neuropathology or neurosciences. Demonstrated research productivity necessary including publications in peer-reviewed journals. Teaching includes fellows in neuropathology, general pathology, medical fellows from other services, and medical students. Assist in providing neuropathology services to patients at University Hospital.

Provide curriculum vitae, three letters of recommendation, and a brief synopsis of recent research activities to:

**Neuropathology Search Committee  
Department of Laboratory Medicine and Pathology  
University of Minnesota, Box 198 UMHC  
420 Delaware Street SE  
Minneapolis, MN 55455**

Deadline for receipt of applications is 15 August 1988. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

**ASSISTANT OR ASSOCIATE PROFESSOR OF MEDICINE** to assume major scientific responsibility for a cardiovascular molecular biology program. The candidate may be an M.D. or Ph.D. with interest and experience in molecular genetics of contractile proteins, membrane channels or membrane receptors. The candidate would be expected to establish own laboratory and interact closely with active ongoing laboratories working in biochemistry, cell physiology, and cell biology of the cardiovascular system within a research-oriented Section of Cardiology. Please send inquiries, résumé, and the names of three references to: **Morton F. Arnsdorf, M.D., Chief, Section of Cardiology, University of Chicago Hospitals, Box #423, 5841 South Maryland, Chicago, IL 60637.**

**BOTANIST**—Tenure-track assistant professorship with teaching responsibilities including general botany, upper level plant ecology, and graduate courses in the appointee's area. Preference will be given to applicants willing to coordinate Biology Education program. Research opportunities include modern laboratory, herbarium, and a 1000-acre campus nature preserve. Send curriculum vitae and three letters of reference by 20 May 1988 to: **Dr. Paul Hamilton, Chairperson, Department of Biology, The University of West Florida, Pensacola, FL 32514. Equal Opportunity/Affirmative Action Institution.**

## POSITIONS OPEN

The Department of Neurosciences, University of California, San Diego (UCSD), is seeking qualified applicants for an **ASSOCIATE PROFESSOR** position to begin 1 July 1988. Ph.D. required in the field of neuroscience, and proven ability to establish an independent research program involving electrophysiological methods in freely moving animals and experience with transplantation methods. Duties will include teaching at graduate, undergraduate, and medical student levels. Applications received on or before 30 May 1988 will be considered. Salary will be commensurate with candidate's experience and published UCSD pay scale. Send curriculum vitae to: **Dr. Fred Gage, University of California, San Diego, Department of Neurosciences, M-024, La Jolla, CA 92093. Immigration status of non-citizen should be stated in application. The University of California is an Equal Opportunity/Affirmative Action Employer.**

### BIOCHEMIST/MOLECULAR BIOLOGIST

The Biology Department of Hood College invites applications for a full-time faculty position at the assistant professor level starting 1 August 1988. Principal responsibility will be teaching a two-semester graduate course in biochemistry for M.S. Program in Biomedical Sciences. In addition, the candidate will be involved in teaching an undergraduate biology course. A Ph.D. is required, and teaching experience is preferred. Salary range is competitive. Submit letter of application, résumé, and the names of three references by 20 May 1988, to: **Dr. Norman Gary, Chairperson, Department of Biology, Hood College, Frederick, MD 21701. Women and minorities are encouraged to apply. Hood College subscribes to the policy of hiring only U.S. citizens and lawfully authorized alien workers. Equal Opportunity Employer.**

**BIOLOGICAL AND PHYSICAL SCIENCE FACULTY.** Adjunct assistant professor of biological science sought to teach core requirement in modern biology and evolution. Special lecturer sought to teach core requirement in physical science. Combination negotiable. Send curriculum vitae, transcripts, and three letters of reference to: **Dr. Laura Landen, Natural Science Program, Providence College, Providence, RI 02918. Providence College is an Affirmative Action/Equal Opportunity Employer.**

**BIOLOGY. TENURE-TRACK POSITION**, starting in the fall of 1988. Responsible for teaching in the areas of cell biology, microbiology, and vertebrate physiology, with specialization in one of these areas. Ph.D. required. Seeking candidates with commitment to the Christian faith. Submit a letter of application with curriculum vitae to: **Dr. Harold Heie, Vice President for Academic Affairs, Northwestern College, Orange City, IA 51041. Equal Opportunity Employer.**

### Ca<sup>2+</sup> CHANNELS ASSOCIATE POSITIONS

The Department of Physiology and Biophysics at The University of Iowa invites applications for faculty positions at the associate level (pre-tenure-track). Individuals interested in using cellular and molecular approaches to study the structure of sarcoplasmic reticulum Ca<sup>2+</sup> release channel or dihydropyridine-sensitive Ca<sup>2+</sup> channel are particularly encouraged to apply. Applicants should have a Ph.D., have a strong background in either biochemistry, biophysics, cell biology, or physiology, and 2 years of postdoctoral research experience.

Submit letter of application, curriculum vitae, two reprints or manuscripts of recent experimental work, and two letters of recommendation to:

**Dr. Kevin P. Campbell  
University of Iowa  
Department of Physiology and Biophysics  
6-530 Bowen Science Building  
Iowa City, IA 52242**

*The University of Iowa is  
An Equal Opportunity/Affirmative Action Employer*

Start up, biotechnology company, central New Jersey area is seeking a recent Ph.D. **CHEMIST/BIOCHEMIST** with expertise in DNA chemistry, for working in the area of novel DNA probe assay development. Competitive salary benefits and a possible equity position are available. Send résumé to: **P.O. Box 4338, Metuchen, NJ 08840.**

## POSITIONS OPEN

**CANCER PHARMACOLOGY POSITION.** The Department of Human Oncology, University of Wisconsin, Madison, invites applications (Ph.D., M.D., and M.D./Ph.D.) for a tenure-track faculty position in the area of cancer pharmacology. Applicants whose research interests include application of molecular techniques in research areas complementing those of the faculty are particularly desirable. Current faculty interests include: molecular and biochemical pharmacology, mechanisms of drug resistance, endocrine pharmacology, modulation of cytotoxic response, drug development/medicinal chemistry, chemoprevention, and biological response modifiers. Candidates will be expected to develop a strong, independent research program. In addition, the successful candidate will be expected to develop a graduate-level course in cancer pharmacology and to participate in the department's Ph.D. training program. Interested applicants should send their curriculum vitae, a statement of research interests, and the names and addresses of three references to: **Chairman, Pharmacology Search Committee, K4/334, CSC, 600 Highland Avenue, Madison, WI 53792.** *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

**CARDIOVASCULAR CONNECTIVE TISSUE MOLECULAR BIOLOGIST**—A postdoctoral or research associate position is available for an individual interested in participating in studies designed to determine the genetic structure, specific structure-function relationships and regulations of genes encoding arterial wall proteoglycans. Candidates for the position should have established expertise in the following procedures: DNA sequence analysis; construction and screening of genomic and cDNA libraries; isolation of eukaryotic nucleic acids; Northern, RNA dot and Southern blot analysis; gene transfer techniques and tissue culture experience. Position and salary will be compatible with experience. Send curriculum vitae and three letters of reference to: **Dr. Kevin L. Dreher, Staff Scientist, Weiss Center for Research, Geisinger Clinic (26-17), Danville, PA 17822.**

### CELL BIOLOGIST

New interdisciplinary research program to examine the influence of nutritional factors in chemical carcinogenesis requires a cell biologist experienced in the derivation of primary cell cultures and establishment of new cell lines. The candidate will also have experience in the study of biochemical mechanisms which relate cellular responses to specific environmental factors (including nutrients and trace metals) to induction of neoplastic transformation in cell cultures and in the whole organism. The objective of this program in the Division of Comparative Toxicology, National Center for Toxicological Research (NCTR) is to understand the modulation of *in vivo* toxic responses to nutritional factors in terms of biochemical mechanisms involved in cellular processes. Academic affiliation, if desired, is possible. *The Food and Drug Administration (FDA) is an Equal Opportunity Employer.* Send curriculum vitae and list of publications to: **Personnel Office, FDA-NCTR, Public Health Service, Jefferson, AR 72079.** For additional information please call: **Mr. King at 501-541-4475.**

### CELLULAR IMMUNOLOGISTS—TENURE TRACK

The Trudeau Institute invites applications for two, full-time, tenure-track positions at the level of assistant professor or associate professor. The successful applicants will be provided the means to develop independent research programs dealing with some aspect of the role of accessory cells, lymphokines, or monokines in regulating immune responses. Training in molecular immunology is desirable, but not essential. Candidates wishing to study other problems in cellular immunology will also be considered. Existing research programs at the institute deal with immune responses to infectious agents, intracellular parasites, tumors, and allografts.

The Trudeau Institute is a free-standing, not-for-profit pure research institute attractively located in a modern complex on the shore of Saranac Lake, 10 miles from Lake Placid, New York. Compensation includes liberal fringe benefits. On-campus housing is available.

Send résumé and the names of three references to:

**Dr. Robert J. North, Director  
Trudeau Institute  
P.O. Box 59  
Saranac Lake, NY 12983**



## INTERNATIONAL LIVESTOCK CENTRE FOR AFRICA VACANCY INT/003/88

### DIRECTOR OF TRAINING AND INFORMATION

The International Livestock Centre for Africa (ILCA), with headquarters in Addis Ababa, Ethiopia is one of 13 international agricultural research organizations supported by the Consultative Group on International Agricultural Research (CGIAR).

ILCA's major activities are research, training and information, and its goal is to achieve measurable and sustainable increases in livestock output in sub-Saharan Africa.

#### POSITION

The Director of Training and Information is responsible for the management of the training and information department, and for ensuring that its programmes are fully coordinated with the ILCA's research efforts. With a budget of over US\$3 million annually, the department manages successful training, publishing, and documentation programmes that strive to meet the needs of the organization and that of partner national agricultural research systems in sub-Saharan Africa. The department organizes individual and group training courses, workshops, seminars and conferences for African researchers, produces a number of publications and audio-visual packages in English and French, and provides a wide range of computer-based information and library services.

The Director of Training and Information reports directly to the DIRECTOR GENERAL. He is responsible for providing leadership to over ten professional and fifty support staff, with wide ranging specializations. He/she ensures that the services continue to be delivered to the highest international standards, in a cost-effective manner.

The Director of Training and Information, as a member of the organization's senior management, is responsible for developing policies and programmes, for ensuring the proper execution of the organization's long-term strategy in training and information, and for monitoring that its programmes adequately address the changing needs of researchers, trainers and policy makers in national agricultural systems in sub-Saharan Africa.

#### QUALIFICATIONS

We are seeking a highly motivated professional with demonstrated management skills and experience in developing policies and programmes for the dissemination of technical information. The candidate shall preferably have a background of working in the developing world, in a bilingual (English and French) environment. Additionally, background in training and information management including publications will be preferred.

Salary and related benefits are paid in US\$ and will be in line with comparable international organizations. Initial salary will be determined by qualification and experience.

Applicants should send current curriculum vitae, recent salary history, names and addresses of three professional referees and photocopies of supporting documents (not returnable) in confidence to: **The Personnel Manager, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia** before May 24, 1988.

## Physical Oceanographer

One or more tenure track appointments are available in the Physical Oceanography Department during 1988. Appointments will be at the Assistant or Associate Scientist level, depending on qualifications. PhD degree required, with post-doctoral experience preferred. Area of research expertise is not specified but should include dynamical physical oceanography. Teaching and advising opportunities exist in a jointly-sponsored graduate program with Massachusetts Institute of Technology. Apply to:

**Dr. Robert C. Beardsley  
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**T CELL SCIENCES, INC.,** an emerging health care company engaged in the development and marketing of therapeutic and diagnostic products, invites applications for the following position:

### Senior Scientist Molecular Biology

**Ph.D.,** self-motivated individual possessing skill and experience in genetic engineering, expression of heterologous proteins in eucaryotic cells as well as associated analytical/preparative molecular biology techniques. Candidates should have academic or industrial post-doctoral experience. Successful candidate will work with established protein expression group on research and development projects involving receptor-based proteins.

We're an equal opportunity employer, offering comprehensive medical/dental plans and competitive salaries. Please send your resume to: **Paula R. Freeman, T Cell Sciences, Inc., 840 Memorial Drive, Cambridge, MA 02139.**



**NATIONAL INSTITUTES OF HEALTH  
NATIONAL INSTITUTE OF  
GENERAL MEDICAL SCIENCES  
Deputy Director, NIGMS**

This is a civil service position in the Senior Executive Service (SES) with a salary range from \$65,994 to \$73,400 (Physicians may be eligible for a Physicians' Comparability Allowance up to \$10,000 per year)

The incumbent of this position will serve as full Deputy to the Institute Director in the coordination of all activities related to the mission and functions of the NIGMS, in the execution of the policies of the Director, and in the allocation of resources to carry out these policies. The Deputy Director of the Institute will also help to formulate the Institute's program objectives, and to develop and/or improve Institute policies and procedures designed to effect the efficient execution of Institute programs and objectives. In addition, the Deputy will represent the Institute in NIH forums and in dealings with other agencies, bringing to bear his/her scientific expertise and managerial skills.

Position information and qualifications requirements may be obtained by contacting:

Howard R. Chernoff, Personnel Officer  
National Institute of General Medical Sciences  
5333 Westbard Avenue  
Westwood Building, Room 9A-13  
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 May 31, 1988.

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## **Research Scientist Immunologist**

Pfizer Central Research has an excellent career opportunity for a creative scientist at its modern Animal Health Research facility in Terre Haute, Indiana. As a member of a strong multidisciplinary project team, you will have an opportunity to exercise ingenuity and originality in developing and conducting basic and applied research toward the *in vivo* evaluation of potential immunomodulating agents.

We are seeking an accomplished scientist who is innovative, enthusiastic, has good communication skills, enjoys working as part of a team, and has broad interests and capabilities. You must possess a PhD in Immunology and have experience with laboratory and domestic animals. While post-doctoral experience would be an asset, educational training, intellectual capabilities, and leadership traits are most important.

Pfizer provides an excellent opportunity for professional recognition and career growth. We offer excellent compensation, comprehensive benefits, and relocation assistance. Qualified applicants should submit a current resume with the names of three references to: Ms. Christina Batjer, Senior Personnel Supervisor, Pfizer Inc., P.O. Box 88, Terre Haute, Indiana 47808.



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**DIRECTOR OF IMMUNOLOGY**

SYNTRO CORPORATION, a biotechnology company located in Sorrento Valley, has an immediate opening for a DIRECTOR OF IMMUNOLOGY. Primary responsibilities will include the development and supervision of a monoclonal and polyclonal antibody service department and the supervision of an existing tissue culture service department.

In addition to a Ph.D. with immunology training, the ideal candidate must possess a strong knowledge of the immunobiology of the immune system with specific reference to infectious diseases and demonstrated managerial ability.

SYNTRO offers a competitive compensation and employee benefit package. If interested please send a resume and references to:

Director of Human Resources  
SYNTRO CORPORATION  
10655 Sorrento Valley Road  
San Diego, California 92121

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### **PHILADELPHIA AREA**

Our client is a new and well financed biotechnology company. Their focus is on the commercial development of novel pharmaceuticals, based on significant new biochemical technology.

The professional sought must have successful director level expertise with a major ethical drug company engaged in drug discovery and development. Specific background should be in the development and production of strategic plans for antibiotics and/or anti-inflammatory agents.

Suitable candidates should be intellectually challenged by the opportunity to direct the scientific management of a young and dynamic company committed to the development of important new therapies with a range of clinical applications.

This situation offers an attractive compensation package as well as a rewarding future at the forefront of expanding technology. For consideration, please send your resume, with salary history, in strict confidence to:

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## POSITIONS OPEN

**DIRECTOR, CLINICAL MICROBIOLOGY LABORATORY.** The Department of Pathology, University of Maryland School of Medicine invites applications for M.D. or Ph.D. faculty position to manage the Clinical Microbiology Laboratory with research in molecular biology. Send curriculum vitae and three references to: **Dr. Ronald L. Anthony, Department of Pathology, University of Maryland School of Medicine, 10 South Pine Street, Baltimore, MD 21201.** *Equal Opportunity Employer.*

### DIRECTOR DIVISION OF TOXICOLOGY DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

The Department of Pharmacology and Toxicology of the University of Arkansas for Medical Sciences is conducting a search to identify candidates for the position of Director of the Division of Toxicology. A successful candidate will have an earned doctoral degree with active research interests in pharmacology, toxicology, or occupational medicine.

The Director of the Division of Toxicology will be responsible for administering graduate programs in toxicology and industrial hygiene. Other educational responsibilities include continuing education in toxicology for health professionals.

The director is expected to have and maintain an active research program and should have demonstrated ability to compete successfully for research support.

*The University of Arkansas is an Equal Opportunity Employer. Women and minority candidates are encouraged to apply.*

Submit curriculum vitae, summary of research and administrative experience, and the names of at least three references to:

**Dr. Donald R. Mattison**  
Department of Obstetrics and Gynecology  
University of Arkansas for Medical Sciences  
4301 West Markham, Slot 518  
Little Rock, AR 72206

### DIRECTOR OF RESEARCH LABORATORY

Academically active anesthesiology department seeks a director for its investigational laboratory. The successful candidate will hold a doctoral degree, and have experience in drug assays, pharmacokinetics, and statistical analysis. Departmental research interests include clinical pharmacology, cardiovascular physiology, management of acute and chronic pain, and obstetrical anesthesia. Rank and salary commensurate with experience.

Applicants should submit their curriculum vitae, a list of publications, statement of research experience, and the names of three references to: **Michael E. Goldberg, M.D., Director of Research, Department of Anesthesiology, Jefferson Medical College, Thomas Jefferson University, Suite 6275, 111 South 11th Street, Philadelphia, PA 19107.**

*Thomas Jefferson University is an Affirmative Action/Equal Opportunity Employer.*

### FACULTY POSITION IN NEUROCHEMISTRY OR MOLECULAR NEUROBIOLOGY

A position is open for a tenure-track or tenured faculty appointment at the University of Southern California. Neurochemists or molecular neurobiologists, working with vertebrate or invertebrate systems, are encouraged to apply. Candidates will be expected to establish an independent research program, contribute to the teaching program of the department, and participate in the University's Program in Neural Informational and Behavioral Sciences. Please send curriculum vitae, names, and telephone numbers of three references, and a brief description of career goals and research objectives by 1 August 1988 to:

**Chair, Search Committee**  
Section of Neurobiology  
Department of Biological Sciences  
University of Southern California  
Los Angeles, CA 90089-0371

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

## POSITIONS OPEN

Princeton University seeks a **DIRECTOR** for its new **MATERIALS SCIENCE CENTER**, which will be housed in a new building and in the laboratories of existing departments. The Center's goals are the design and study of materials based on the prediction and fundamental understanding of properties in their relation to composition and structure. Because its program will have a strong component in the theory of materials, the director can be a theoretician and/or an experimentalist. The director will be a distinguished researcher with a faculty appointment in one of the participating departments. Send nominations and inquiries by 1 August 1988 to: **A. Navrotsky, Chairman of the Materials Science Search Committee, Department of Geological and Geophysical Sciences, Princeton University, Princeton, NJ 08544. Telephone: 609-452-4674.**

*Princeton University is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION IN BIOCHEMICAL—ENVIRONMENTAL TOXICOLOGY

The School of Pharmacy, University of California at San Francisco seeks an outstanding scientist to fill the position of Director of the Division of Toxicology in the Department of Pharmacy. This is a tenured, ladder-rank appointment at the full or associate professor level. The individual should have research interests that bridge the areas of biochemical and environmental toxicology. Applicants should have an established reputation for excellence in research and teaching, with demonstrated accomplishments in studies on the molecular mechanisms of actions of toxic xenobiotics including environmental pollutants. Primary research focus may include studies on: enzyme-mediated bioactivation of xenobiotics; genotoxic agents; gene cloning related to toxins; or chemical-induced cell injury using cell and tissue cultures. In addition to teaching and research responsibilities, the successful applicant will be in charge of the further development of an interdisciplinary graduate training program in the Division of Toxicology whose membership includes faculty from the Schools of Pharmacy and Medicine. The candidate selected can recruit for two junior, tenure-track positions. Applicants should have a Ph.D., M.D., or both. Interested individuals should submit curriculum vitae, names and addresses of three referees, and a statement on present and future research interests to: **Alma L. Burlingame, Ph.D., Chair, Search Committee, Department of Pharmaceutical Chemistry, School of Pharmacy, University of California, San Francisco, CA 94143-0446. Telephone: 415-476-5641.**

*UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

### DUKE UNIVERSITY FACULTY POSITION IN MOLECULAR BIOLOGY

We have an immediate opening for an assistant professor (non-tenure-track) to join our research group. This laboratory, comprising six faculty members with diverse backgrounds in cell biology, molecular biology, biochemistry, and immunology, investigates functions of macrophages and how these are regulated. Interactions between second messengers and gene regulation are emphasized. We seek a highly qualified molecular biologist with an interest in gene regulation to supervise directly our ongoing studies in this area of macrophage activation. Several highly trained postdoctoral fellows and technicians are already working on this problem in the laboratory. A background in analysis of protein-DNA regulatory interactions (i.e., footprinting, nuclease sensitivity, gel shifts, etc.) would be highly desirable but not essential. The position offers the opportunity for the successful candidate to join a well-established laboratory, supervise a productive ongoing research program, and develop independent research initiatives. An attractive working environment and salary are offered. Interested individuals should send their curriculum vitae and names of at least three references to:

**Dolph O. Adams, M.D., Ph.D.**  
Director, Laboratory of Cell and Molecular Biology  
of Leukocytes  
Box 3712, Duke University Medical Center  
Durham, NC 27710  
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## POSITIONS OPEN

### ENGINEERING RESEARCH MATERIALS POLICY STUDIES

The National Research Council is seeking a Senior Program Officer for its National Materials Advisory Board. Responsibilities include the development and direction of technical studies for use by government agencies in formulating policies and programs, development of new programs with sponsors, and development of proposals for new projects. Requires a Ph.D., or equivalent, in materials science, materials engineering, or a related discipline with a minimum of 5 years of experience related to materials research and development. Other requirements include familiarity with the materials communities in industry, academe and government, knowledge of policy issues in materials science and engineering, knowledge of government agencies and their work in materials related activities, and demonstrated ability to develop new programs in the technical/policy fields. Excellent verbal, written and management skills required. The NRC offers an exceptional benefits package. For consideration, please send confidential résumé to:

**NRC/NMAB**  
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**ENVIRONMENTAL CHEMIST**—The College of Public Health is seeking applicants for a tenure-earning assistant/associate/full professor position in the Department of Environmental and Occupational Health. The candidate should have a Ph.D. in chemistry or related field, with research experience in hazardous waste treatment or ground water pollution. Rank and salary are commensurate with experience. Curriculum vitae and brief statement of research interests should be received by 30 June 1988. Send to: **Environmental Health Faculty Search Committee, College of Public Health/University of South Florida, 13301 Bruce B. Downs Boulevard, Tampa, FL 33612-3899.** *USF is an Equal Opportunity/Affirmative Action Employer.*

### GROUNDWATER CENTER

The Academy of Natural Sciences seeks qualified candidates to fill a **SENIOR RESEARCH POSITION** to develop a research program for a newly formed groundwater center. The Groundwater Center is part of a distinguished multi-institutional research and education consortium. The successful candidate should have research experience in either attenuation of complex chemicals in soils/groundwater, geohydrology or microbiology. A Ph.D. and a significant record of research required. Adjunct association with a university and graduate teaching available. Salary dependent on qualifications of candidate. Position immediately available. Send curriculum vitae and four references by 15 June 1988 with reply to: **Dr. Louis E. Sage, Academy of Natural Sciences, Division of Environmental Research, Philadelphia, PA 19103.** *An Equal Opportunity Employer.*

### MOLECULAR CELL BIOLOGIST SECRETION

The Department of Anatomy and Cell Biology, Medical University of South Carolina, is continuing to expand its research strength in the area of secretion. Applications are invited for a tenure-track faculty position at a senior or junior level. We are seeking an individual who will establish an independent research program and who would benefit by interaction with investigators from four other laboratories taking multidisciplinary approaches to this problem. We are particularly interested in scientists working on the regulation of gene expression or using molecular strategies to investigate intracellular trafficking, sorting or export of secreted products. However, we welcome applications from individuals using innovative approaches to study other aspects of the secretory process. Interested individuals should send curriculum vitae to:

**Dr. L. Stephen Frawley**  
Department of Anatomy and Cell Biology  
Medical University of South Carolina  
171 Ashley Avenue  
Charleston, SC 29425-2204  
Telephone: 803-792-3526

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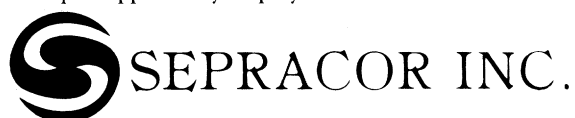
**Hematologist, M.D. or Ph.D.,** to develop the technology of hematopoietic stem cell purification for autografting from marrow or blood, and to develop novel blood cell fraction preparation techniques for use in transfusion medicine.

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These positions require 2-5 years of relevant post-doctoral experience. Through its Scientific Advisory Board, Sepracor maintains close ties to Dana-Farber Cancer Institute, M.I.T., and the University of Pennsylvania. We are located about 35 miles west of Boston, and 10 miles east of the University of Massachusetts Medical School. Please send resume to: **Ms. Frances Sharp, Human Resources Administrator, Sepracor Inc., 33 Locke Drive, Marlborough, MA 01752.** An Equal Opportunity Employer M/F.



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New England Biolabs, a pioneer and leader in biotechnology located twenty miles north of Boston is seeking applicants.

### Postdoctoral Positions

**Gene Cloning**—Candidate should have training in biochemistry/enzymology and molecular biology. Projects involve the cloning, overproduction and mutagenesis of restriction modification systems.

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In addition to competitive salary, New England Biolabs offers a very generous fringe benefits package. Attendance at meetings, publication of research results and open communication with others are encouraged.

Candidates please submit curriculum vitae with three references to:

**New England Biolabs, Inc.  
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32 Tozer Road  
Beverly, MA 01915-5510**



## Head Department of Medical Physiology

The University of Calgary Faculty of Medicine invites applications and nominations for the position of Head of the Department of Medical Physiology. In this Faculty, physiology is taught within an integrated curriculum emphasizing problem-solving and a comprehensive approach to individual body systems. In recent years there has been substantial development of biomedical research with support from government agencies and foundations including the Alberta Heritage Foundation for Medical Research.

The applicant must have a PhD, MD or equivalent degree, be recognized internationally for excellence in biomedical research, have a commitment to medical education, have demonstrated strong leadership and administrative abilities and be able to recruit outstanding scientists and teachers to the Faculty.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

Applicants and nominations, including a curriculum vitae, a statement of research interests and academic goals, and names of three references, should be forwarded by May 31, 1988 to:

**Dr. M. Watanabe  
Dean, Faculty of Medicine  
The University of Calgary  
3330 Hospital Drive N.W.  
Calgary, Alberta Canada  
T2N 4N1**



## Ph.D. Gastrointestinal Physiologist/Pharmacologist

Procter & Gamble, a leader in health care R&D, seeks an entry level Ph.D. with gastrointestinal physiology and/or pharmacology training. Smooth muscle physiology training (e.g., cardiovascular) may also be suitable. Postdoctoral training desired but not required.

The individual will work in a GI research group with interest in disorders affecting GI motility. Preference given to those familiar with *in vivo* and *in vitro* study of GI smooth muscle function and CNS/peripheral neuromodulatory control of motility. Ability to develop animal models for such evaluation is important. Good communication skills needed, along with the desire to work in a strong, interdisciplinary team environment.

Location: Miami Valley Laboratories, Cincinnati, Ohio. U.S. citizenship or permanent residence required. Send resume and publication list to:

**Dr. T. J. Logan  
GI Physiology Position  
THE PROCTER & GAMBLE COMPANY  
P.O. Box 398707  
Cincinnati, Ohio 45239-8707**

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# Procter & Gamble



# Research Management

## Tumor / Cell Biology & Immunology

Triton Biosciences Inc. has an opening for a Research Manager to take charge of our tumor/cell biology and immunology groups. These groups are engaged in a variety of projects in the areas of tumor biology, growth factors, growth factor receptors, lymphokines, and oncogenes.

We desire an individual with an established record of research in one or more of the above fields. It is anticipated that the successful candidate will have 5-8 years experience beyond the postdoctoral level and preference will be given to those having industrial experience, including responsibility for a research group.

Triton Biosciences Inc., a subsidiary of Shell Oil Company, is an emerging fully integrated pharmaceutical and diagnostics company located in the San Francisco Bay Area. We offer competitive salaries and benefits including a full relocation package. For consideration, please send your C.V. and names of three references to: Triton Biosciences Inc., Box JJM, 1501 Harbor Bay Parkway, Alameda, CA 94501. Triton is an Equal Opportunity Employer.



Triton Biosciences Inc.

## UNIVERSITY OF BASEL (Switzerland)

Department of Geology

### FULL PROFESSORSHIP IN GEOLOGY

Applications are invited from candidates with research interests in general geology and tectonics. Experience with computer applications is desired. The candidate is expected to develop a broad interest in Alpine geology and regional geology of Basel. The position is open October 1989.

Teaching responsibilities include general and regional geology and tectonics. Lectures are to be given in German; however, applicants not yet fluent in the language but willing to learn it will be considered.

Applications including a curriculum vitae, list of publications, reprints of not more than five papers, a brief statement of research activities in the past, present and future, and a documentation of teaching experience should be sent by June 30, 1988 to the Dean of the Faculty of Science.

Address:

Deakanat der Philosophisch Naturwissen-  
schaftlichen Fakultät  
der Universität Basel  
Klingelbergstrasse 23,  
CH-4056 Basel, Switzerland

## Computational Drug Design

The Physical and Structural Chemistry Department of Smith Kline & French Laboratories is seeking Ph.D. level computational chemists for its computational chemistry and molecular modeling group. The primary functions of the group are to design and implement computational modeling studies in collaboration with other SK&F research groups and to develop new computational and modeling methods. Members of this group interact with medicinal and physical chemists who are themselves also active in computer assisted molecular modeling.

Successful candidates will have experience and/or interest in at least one of the following areas:

- Molecular mechanics, molecular dynamics and the underlying physical chemistry of molecular modeling.
- Structural analysis of conformationally flexible molecules of intermediate size.
- Conformation of biological macromolecules.
- Applications of molecular modeling to problems involving enzyme-substrate or hormone-receptor interactions.
- Incorporation of physicochemical experimental data to molecular modeling.

Position levels commensurate with experience and scientific record. Scientific publication will be encouraged and expected.

Located near Valley Forge, PA in a new, state-of-the-art research facility, we offer an excellent salary, benefits, and relocation package as well as the opportunity for personal and professional growth. Please forward your resume to Robert F. Obst, Manager, Personnel Relations, R0127, Smith Kline & French Laboratories, P. O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.

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## Research Scientist/ Pharmaceutical Chemist

As one of the world's foremost biomedical companies, Collagen Corporation specializes in pioneering all phases of differentiated biomedical products. Our state-of-the-art environment, combined with the clinical relevance of our core technology, presents a unique opportunity for an extraordinary Research Scientist/Pharmaceutical Chemist.

In this highly visible position, you will have primary responsibility for the formulation and delivery of peptide and proteins. Your expertise should include prior experience in pharmaceutical stability and thorough knowledge of pharmacokinetics and GMP's. Experience in transdermal delivery is highly desirable. You also must possess a Ph.D. with relevant industry experience. Ph.D. in Pharmacy would be exceptional.

Collagen Corporation recognizes and rewards scientific excellence by offering an excellent salary and benefits package. Relocation assistance will be provided. Please send your C.V., bibliography, and the names of several references, to: S. Hansen, Human Resources, Collagen Corporation, 2500 Faber Place, Palo Alto, CA 94303. We are an equal opportunity employer.



**COLLAGEN**  
CORPORATION

## THE UNIVERSITY OF ADELAIDE

### WAITE AGRICULTURAL RESEARCH INSTITUTE

invites applications from both women and men for the following position:

### WAITE CHAIR OF AGRICULTURAL BIOCHEMISTRY

(Tenurable)

(Ref: 1058) The Chair, founded in 1924, is in the Department of Agricultural Biochemistry which is principally concerned with plant and microbial biochemistry as they pertain to agriculture.

The University seeks applicants with a proven record of high quality research in plant and/or microbial biochemistry, and preference may be given to a person with experience in the general area of gene technology and other biotechnology relevant to agriculture.

The Chair was formerly occupied by Professor D.J.D. Nicholas who retired in December 1986.

**SALARY:** A\$59,183 per annum. The University of Adelaide is a participant in the Superannuation Scheme for Australian Universities, membership of which is obligatory.

**FURTHER INFORMATION:** Statements setting out the formal terms and conditions of appointment and providing details of research and facilities at the University of Adelaide, the Waite Agricultural Research Institute and the Department of Agricultural Biochemistry are obtainable from the Registrar of the University. Any further information about the conditions of appointment or about the University should be sought from the Registrar. Further information about research and facilities at the Waite Agricultural Research Institute and in the Department of Agricultural Biochemistry may be obtained from the Institute's Director, Professor J.P. Quirk, A.O., F.T.S., F.A.A.

It is University policy to encourage women to apply for appointment to tenurable academic positions. Holders of full-time tenured or tenurable academic appointments have the opportunity to take leave without pay on a half time basis for a specific period of up to ten years where this is necessary for the care of children.

**APPLICATIONS, IN DUPLICATE,** quoting reference number 1058 and giving full personal particulars (including whether candidates hold Australian permanent residency status), details of academic qualifications and names and addresses of three referees should reach the Senior Assistant Registrar (Personnel) at the University of Adelaide, GPO Box 498, Adelaide, South Australia, 5001, Telex UNIVAD AA 89141 not later than 17 June 1988.

The University reserves the right to make enquiries of any person regarding any candidate's suitability for appointment, not to make an appointment or to appoint by invitation.

*THE UNIVERSITY OF ADELAIDE IS AN EQUAL OPPORTUNITY EMPLOYER*



**GLAXO INSTITUTE FOR  
MOLECULAR BIOLOGY S.A.**

The Geneva biotechnology research unit of a large U.K. pharmaceutical group has a vacancy for a

## YEAST GENETICIST

to study heterologous gene expression in yeast and to develop the genetics of pathogenic fungi.

A strong research experience in molecular and classical genetics of yeast is required for this position.

Situated in the attractive city of Geneva, the institute has a staff of over one hundred, grouped in small teams of specialists in several domains of modern biology. We are part of the Glaxo group, one of the largest pharmaceutical companies in the world, which has an outstanding reputation for the quality of its research and products. Our institute offers an excellent salary and benefit package.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of 3 references to: Rita Gloor, Personnel Manager, GLAXO IMB S.A., 46, route des Acacias, 1211 Geneva 24, Switzerland.

## Biochemical Engineer/ Cell Biologist

Merck Sharp & Dohme Research Laboratories is offering an excellent career opportunity for a creative biochemical engineer/cell biologist to apply state-of-the-art cell culture and bioreactor technologies to the scale-up of a wide variety of mammalian as well as hybridoma and insect cell lines. Operations also will include development, characterization and optimization of cell lines, serum-free media development, large scale culture process research, and production and harvesting of cells and media.

The successful candidate will report to the head of the mammalian cell culture scale-up facility and will interact with molecular biologists, cell biologists, immunologists and biochemical engineers on some of the company's leading projects.

Significant experience in both cell biology as well as scale-up culture technology is essential. A Master's degree in a relevant discipline is desirable but not essential.

Excellent salary and benefit programs accompany this position at our new research building in Rahway, New Jersey. Please send your resume, three professional references whom we may contact, and salary requirements in complete confidence to: **Ms. Susan R. Jenkins, Associate Director, Merck & Co., Inc., P.O. Box 2000, Rahway, NJ 07065.**

Equal Opportunity Employer



**Merck & Co., Inc.**

## POSITIONS OPEN

### MOLECULAR BIOLOGIST

The Winship Cancer Center of Emory University School of Medicine in Atlanta, Georgia, is recruiting a molecular biologist to work in the cancer-related fields of developmental biology, gene structure and regulation, oncogenic viruses and/or cellular growth factors. Experience with the use of transgenic technology would be especially desirable. A successful candidate will be recruited at the level of associate professor or professor, depending upon experience. The incumbent will occupy laboratory space in the new Winship Cancer Center building. This space is adjacent to multiple shared University facilities, including the microchemical facility for molecular biology, the fermentation laboratory, the cell sorter laboratory, the monoclonal antibody laboratory, the barrier mouse facility, etc. A successful candidate will have the opportunity to interact with colleagues and students through the Cancer Center, through the Department of Biochemistry and its related programs in molecular biology, through the interdepartmental program in genetics, and through the graduate division of Biological Sciences. Emory University Medical School has a broad clinical base encompassing five metropolitan hospitals and the regional cancer registry. It is located on the suburban Emory University campus, which it shares with the other graduate and professional schools, the undergraduate college, U.S. Centers for Disease Control, the Yerkes Primate Center, and the National Headquarters of the American Cancer Society. Interested candidates should send their curriculum vitae and the names of three references to: **Dr. Kenneth W. Sell, Director, Winship Cancer Center, Emory University School of Medicine, Atlanta, GA 30322**, by 1 June 1988. *Emory University is an Affirmative Action Employer.*

### MOLECULAR BIOLOGIST UNIVERSITY OF FLORIDA COLLEGE OF MEDICINE

A tenure-track position at the assistant professor level will be available in the Department of Neuroscience, University of Florida College of Medicine, starting 3 January 1989. The University has a large and growing state-funded Interdisciplinary Center for Biotechnology Research, and a strong commitment to expand in this area of research. The successful candidate will be expected to establish an independent research program and participate in graduate/medical teaching. Applications should send a summary of research interests and have three letters of recommendation sent to: **Dr. Gerry Shaw, Department of Neuroscience, University of Florida College of Medicine, Gainesville, FL 32610-0244**, before 1 August 1988.

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

**MOLECULAR BIOLOGIST.** A research position in molecular biology is currently available in our Department of Physiology and Medicine. The person appointed will collaborate with the group actively working in nonhuman primate lipoprotein biochemistry and metabolism. (This department's baboon resource exceeds 2000 in number). The position requires a Ph.D. in biochemistry/molecular biology with three or more years of experience. Salary and rank will depend upon qualifications and experience. Please send your curriculum vitae and research interests with the names and telephone numbers of three references to: **Personnel Director (838), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78284.** *Equal Opportunity Employer M/F.*

**MOLECULAR BIOLOGIST** to conduct studies on the molecular mechanisms involved in neoplastic development. Must have at least 2 years of postdoctoral experience in the molecular and biochemical characterization of human oncogenes related to growth factors. Extensive experience with recombinant DNA techniques (cDNA cloning, nucleotide sequencing, etc.), tissue culture (gene transfer assays, growth factor assays, etc.) and protein chemistry (growth factor purification, HPLC, gel electrophoresis). Additional experience in basic immunological techniques such as antibody production, Western blotting, etc. is highly desirable. Salary commensurate with qualifications. Submit curriculum vitae to: **The Squibb Institute for Medical Research, Human Resources Department 600, P.O. Box 4000, Princeton, NJ 08543.** *An Equal Opportunity Employer.*

## POSITIONS OPEN

### MOLECULAR BIOLOGIST MALARIA VACCINE DEVELOPMENT

The Department of Immunology at the Walter Reed Army Institute of Research in Washington, D.C., has an opening for a molecular biologist with experience in recombinant gene expression and protein isolation to study proteins with potential value as vaccine candidates against malaria. The individual will join a large team of scientists working on merozoite antigens. Applicants should have at least 2 years of postdoctoral work experience using molecular biology techniques. The job position is a full-time U.S. Government civilian position at the GS-12 level. Contact: **Dr. David Lanar, Department of Immunology, WRAMC, Washington, D.C. 20307-5100. Telephone: 202-576-3331.** *U.S. citizenship required.*

*An Equal Opportunity Employer*

**MOLECULAR BIOLOGY/BIOCHEMISTRY FACULTY.** Position available at any rank for individual with ability to maintain an independent creative research program in a department with a strong emphasis on research and scholarly activity. Preference will be given to applicants utilizing molecular biology technology for the study of eukaryotic systems. New faculty are given a reduced teaching load and adequate start-up funds to permit development of research potential. Ability to teach at medical/graduate level is required. The Chicago Medical School is located 38 miles north of downtown Chicago in new, well-equipped facilities. Submit curriculum vitae and three references to: **Dr. R. G. Kemp, Biological Chemistry and Structure, University of Health Sciences/The Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064.**

### NEUROENDOCRINOLOGIST

The Department of Physiology and Neurobiology, University of Connecticut at Storrs seeks applications for a tenure-track professorship. Candidates should possess research experience in mammalian neuroendocrinology (emphasis on biological rhythms with relationship to the pineal gland). Leadership/supervisory skills and the ability to attract extramural support required. Salary commensurate with experience. Send curriculum vitae and statement of research interests to: **Dr. G. R. Pilar, Head, Physiology and Neurobiology, University of Connecticut, Box U-42, TLS 416, 75 North Eagleville Road, Storrs, CT 06268.** Screening begins on 19 May 1988 until filled. *Affirmative Action/Equal Opportunity Employer.* (Search #8A323).

**NUCLEAR MEDICINE**—Georgetown University Hospital, Department of Radiology has an opening at the **ASSISTANT/ASSOCIATE PROFESSOR** level for an academically oriented physician with specialty training in nuclear medicine. The position involves major responsibilities in patient care and teaching and requires a strong interest in research. Interest/training in pediatric nuclear medicine would be an advantage. Preference will be given to candidates certified in diagnostic radiology. Contact: **John W. Keyes, Jr., M.D., Director, Division of Nuclear Medicine, Georgetown University Hospital, 3800 Reservoir Road NW, Washington, DC 20007. Telephone: 202-784-3360.**

The Department of Pediatrics at the University of Michigan is seeking two Board-eligible/certified **PEDIATRIC HEMATOLOGISTS/ONCOLOGISTS**. Duties include patient care, teaching, and research activities. *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.* If interested, please send curriculum vitae to: **Laurence A. Boxer, M.D., Director, Pediatric Hematology/Oncology Division, F6515 C. S. Mott Children's Hospital, 1500 East Medical Center Drive, Ann Arbor, MI 48109-0238.**

The Department of Pediatrics at the University of Michigan is seeking Board-eligible/certified **PEDIATRIC NEUROLOGIST**. Duties include patient care, teaching and research activities. *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.* If interested, please send curriculum vitae to: **Robert P. Kelch, M.D., Chairman, Department of Pediatrics, D3202 MPB Box 0718, 1500 East Medical Center Drive, Ann Arbor, MI 48109-0718.**

## POSITIONS OPEN

### PEPTIDE BIOCHEMIST

The recently created Division of Neuroscience at the Oregon Regional Primate Research Center has a position available (assistant or associate rank) for a scientist with research interests in the biochemistry of growth factors, and/or neuropeptides, their receptors, and the intracellular proteins mediating their genomic actions. The appointee is expected to develop a vigorous research program employing modern purification, isolation and characterization strategies to elucidate the structure and function of trophic factors of brain origin. The candidate should be willing to interact with a newly formed group of investigators studying the development of hypothalamic function by physiological, cellular and molecular methods. A background in molecular biology and, in particular, expression analysis is desirable. Substantial laboratory space and start-up funds will be available. Excellent opportunities exist for interaction with the new Vollum Institute for Advanced Biomedical Research and basic science departments at the Oregon Health Sciences University. Qualified individuals should send their curriculum vitae, a statement of research interests, and the names of three references to: **Sergio R. Ojeda, D.V.M., Head, Division of Neuroscience, Oregon Regional Primate Research Center, 505 N.W. 185th Avenue, Beaverton, OR 97006.** *The Oregon Regional Primate Research Center is an Equal Opportunity/Affirmative Action Employer.*

### NEUROMUSCULAR CENTER UNIVERSITY OF SOUTHERN CALIFORNIA SCHOOL OF MEDICINE PHARMACOLOGIST/BIOCHEMIST

Research associate/research assistant professor position available immediately for Ph.D. experienced in receptor pharmacology and protein chemistry to join an active group in neuromuscular research. Studies will involve regulatory mechanisms of membrane receptors of normal and diseased cultured human muscle and rodent motor neurons. Experience in molecular biology desirable. Salary competitive, excellent fringe benefits. Send curriculum vitae and three letters of reference to: **W. King Engel, M.D., Director, U.S.C. Neuromuscular Center, University of Southern California School of Medicine, Hospital of the Good Samaritan, 637 South Lucas Avenue, Los Angeles, CA 90017.** *An Affirmative Action/Equal Opportunity Employer.*

**Ph.D. Roger Williams General Hospital** seeks a researcher with a Ph.D. in molecular or cellular biology. The candidate must qualify for a position on the medical faculty of Brown University as assistant professor of medicine and pathology (research) and must have demonstrated skills and interest in conducting research in the areas of growth factors, liver gene regulation, or extracellular matrix regulation. The primary faculty appointment will be in the Department of Medicine. May train pre-medical, medical and postgraduate students in the laboratory. Expertise in gene cloning and sequencing and DNA-protein interactions is preferred, but experience in other areas of molecular or cellular biology will be considered. Please send curriculum vitae and a one-page statement of research interests by 10 June 1988 to: **Paul Calabresi, M.D., Chairman, Search Committee, Roger Williams General Hospital, 825 Chalkstone Avenue, Providence, RI 02908.** *Roger Williams General Hospital is an Equal Employment Opportunity/Affirmative Action Employer and actively solicits applications from minority and protected groups.*

Anticipated Ph.D. **PHYSICAL OCEANOGRAPHER.** Assistant professor to work in collaboration with ecologists, chemists, and fisheries oceanographers on questions ranging from transport of non-conservative chemicals in shallow environments to recruitment phenomena associated with largest delta/estuary complex in the U.S. Duties include graduate teaching. Tenure-track and joint appointment in Department of Marine Sciences and Coastal Ecology Institute. Send letter detailing career goals and research interest, curriculum vitae, and names of three references to: **Dr. Robert S. Carney, Department of Marine Sciences, Center for Wetland Resources, Louisiana State University, Baton Rouge, LA 70803.** Applications accepted through 31 May 1988. *LSU is an Equal Opportunity Employer.*



**INTERNATIONAL LIVESTOCK  
CENTRE FOR AFRICA  
HEAD OF HERBAGE  
SEED UNIT  
VACANCY INT/002/88**

**GENERAL**

The International Livestock Centre for Africa (ILCA) with headquarters in Addis Ababa, Ethiopia is one of 13 international agricultural research organizations which are supported by the Consultative Group on International Agricultural Research (CGIAR).

The Centre has research activities in some 14 sub-Saharan African countries and has administrative offices in Kenya, Mali and Nigeria.

**POSITION**

The Head of Herbage Seed Unit has overall responsibility for project development and the management of the units operations. He/she works closely within ILCA's research department, national and international researchers to strengthen forage seed programs and the seed industry in the region. He/she will contribute to training programs within and outside the centre, advise on quality control activities and guide research. He/she should be able to assist in the development of basic commercial seed production and marketing programs and aid governments in the development of strategies to achieve their seed sector development goals. The duty station is Debre Zeit (45 km from Addis Ababa, Ethiopia).

**QUALIFICATIONS**

- PhD/MSc Degree in Seed Technology, Agronomy, Plant Breeding or related or alternatively have an extensive experience in seed program leadership.
- Experience in seed research, production and technology activities, preferably in developing areas, familiarity with forages.
- Excellent command of English and French is needed.

Salary and related benefits are paid in US\$ and will be in line with comparable international organizations. Initial salary will be determined by qualifications and experience.

Applicants should send current curriculum vitae, recent salary history, names and addresses of three professional referees and photocopies of supporting documents (not returnable) in confidence to: **The Personnel Manager, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia** before May 16, 1988.

## PLANT SCIENTISTS

The LILLY RESEARCH LABORATORIES, of Eli Lilly and Company, is expanding discovery research in plant science at our Greenfield, Indiana laboratories. Eli Lilly and Company has a long-standing commitment to excellence and leadership in life sciences research and markets agricultural chemicals worldwide through its Elanco Products Division. In keeping with that direction, openings are available for senior Ph.D. scientists with demonstrated research accomplishment.

We are searching for three biological scientists to work in the areas of plant physiology, entomology, and plant pathology. Successful candidates would be expected to establish an independent research program contributing to the discovery of innovative products for plant agriculture. Expertise in determining mechanism of action and using that information to design tests and screens is required. Collaboration with chemists, molecular biologists, biochemists, and developmental and field scientists would be available to assist in progressing an interdisciplinary research program.

Technical leadership in the biochemistry and physiology of the science with an appreciation for applied aspects are necessary. Good communication, organizational, and interactive skills will be expected. The candidate's level of entry and position title will be commensurate with their experience.

Eli Lilly and Company offers a professional environment and an attractive compensation package. For prompt consideration, please forward your curriculum vitae to:



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

Equal Opportunity Employer

## Biostatistician

The Joint Commission on Accreditation of Healthcare Organizations's *Agenda for Change*, centers on the development of better ways to assist health care organizations in assessing and approving the quality of health care.

The individual we seek will be responsible for the statistical analysis of patient outcome data using appropriate risk adjustment techniques in order to identify potential problematic clinical areas that will require further evaluation by health care organizations.

We are looking for a PhD Biostatistician with at least seven years experience, preferably in an applied setting and demonstrated ability to perform independently all phases of complex data analysis, from conceptualization through computerized analysis to communication of the results.

In return for your education and experience, we offer you an excellent starting salary and an outstanding flexible benefits package. Interested applicants should submit their resume and salary requirements to: **Ms. Jean Galovich, Director of Personnel, Joint Commission on Accreditation of Healthcare Organizations, 875 N. Michigan Avenue, Chicago, IL 60611.** Equal Opportunity Employer M/F/H/V



**Joint Commission**  
on Accreditation of  
Healthcare Organizations

## If Research Is What You Do Best ...

As one of the premier biopharmaceutical companies, the research opportunities at Genetics Institute are unparalleled. Collaborating with the most respected scientists in the field you will work on the leading edge of today's most innovative application of scientific discovery, the development of human therapeutics through recombinant DNA technology.

### Molecular Biologist/ Secretion Geneticist

An opportunity exists for an individual to be responsible for developing and improving technologies for secreting heterologous proteins in prokaryotes. This individual should possess a Ph.D. in Molecular Biology or Bacterial Genetics with specialized expertise in the mechanism of secretion and in molecular biology. The successful candidate will also have proven ability to conduct independent research within a multidisciplinary team.

Genetics Institute offers an attractive compensation and benefits package including equity participation and an excellent opportunity for personal and professional growth. Qualified applicants should forward their resumes, in confidence, to Sheri Rist, Genetics Institute, 87 CambridgePark Drive, Cambridge, MA 02140.

An Equal Opportunity Employer

## Genetics Institute

## POSTDOCTORAL RESEARCH TRAINING FELLOWSHIPS

A limited number of Postdoctoral Traineeships in Cellular and Developmental Neurobiology for U.S. citizens and permanent residents are available annually at the Robert Wood Johnson Medical School.

Research opportunities are available in the laboratories of one or more of the following participating training faculty: Drs. M. David Egger, Program Director (Developmental Neurobiology), Herbert M. Geller, Assistant Director (Developmental Neurobiology), C.O. Brostrom (Cell Calcium), M.A. Brostrom (Cell Calcium), E.T. Browning (Glial Cell Function), R. Duvoisin (Clinical Neuroscience), L. Grandison (Neuroendocrinology), R. Heikkila (MPTP and Parkinson's Disease), S. Hitchcock-DiGregori (Molecular Biology of Contractile Proteins), M. Miller (Cortical Development), W.J. Nicklas (Amino Acid Biochemistry), R. Nowakowski (Hippocampal Development in Mutant Mice), D.J. Wolff (Protein Phosphorylation).

Stipends are based on the N.I.H. salary schedule, plus an institutional supplement. Robert Wood Johnson (formerly Rutgers Medical School), part of the University of Medicine and Dentistry of New Jersey (UMDNJ), is situated on the campus of Rutgers University in central New Jersey, midway between New York and Philadelphia.

Interested candidates should **write directly to the likely mentor**, with a copy to the **Program Director, at UMDNJ-Robert Wood Johnson Medical School, (S) 675 Hoes Lane, Piscataway, NJ 08854-5635**, including a current curriculum vitae and a list of three referees. For more general information, contact the Program Director.

UMDNJ-Robert Wood Johnson Medical School is an Affirmative Action/Equal Employment Opportunity Employer M/F/H/V.

**UMD**  
NEW JERSEY

### SENIOR SCIENTISTS

Rapid growth in the use of PANLABS' services has created immediate openings in the following areas:

**MANAGER, PHARMACOLOGY** - The candidate for this position should have a Ph.D. in Pharmacology or a closely related discipline with demonstrated experience in molecular/biochemical pharmacology. Four years or more of prior industrial experience highly desirable. Responsibilities include scientific development of new services, monitoring and reporting results, expansion and maintenance of client base (requires international travel).

**MOLECULAR BIOLOGIST** - Ph.D. Molecular Biologist with postdoctoral experience. Primary responsibilities: cloning work with a number of different industrial microorganisms. Experience with protein purification, vector development, gene isolation and gene expression would be desirable.

PANLABS, a bioservice company founded in 1970, has moved its U.S. operations to expanded campus-type facilities in the high tech corridor north of Seattle.



Please send CV and 3 references  
to: Director of Human Resources

PANLABS, INC.

11804 North Creek Parkway South  
Bothell, WA. 98011

An equal opportunity employer

### AAAS Memberships and Subscriptions

- Whenever you write us about your membership or subscription, please attach a Science address label to ensure prompt service.
- **Mail to:** Membership and Subscription Records, AAAS, 1333 H Street, NW, Washington, D.C. 20005.
- ☐ **Change of Address:** Please provide 6 weeks' notice. Paste an address label from a recent issue in the space provided. Print new address below.
- ☐ **Query:** If you have a question, place your address label here and attach this form to your letter.
- **To join or subscribe:** Mail this form with your payment, mark the appropriate boxes, and print your name and address in the space below. (For renewals, attach label.)

- ☐ **Membership rates** (individual only)
- ☐ \$65 USA ☐ \$97 Canada ☐ \$92 Foreign
- ☐ \$130 air-surface delivery via Holland
- ☐ **Subscriber rates**
- ☐ \$98 USA ☐ \$130 Canada ☐ \$125 Foreign
- ☐ \$163 air-surface delivery via Holland

- ☐ Payment enclosed ☐ Bill me later

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**ATTACH  
LABEL  
HERE**

## HEAD OF DIVISION OF SURGICAL RESEARCH

The Research Institute of the Hospital for Sick Children, one of the largest and most active of its kind in the world, is seeking a Researcher with a Ph.D. and/or M.D. to head a surgical research group. Current research interests include: physiology of the microcirculation, transplantation, surgical oncology, and wound healing with emphasis on the musculoskeletal system. The present research group consists of 2.5 full time research scientists and eight part time clinician/scientists. The research activities are closely associated with well known surgical divisions covering all specialties of pediatric surgery. There is opportunity for modest growth of the research group in the near-term and further expansion in the future. Currently, approximately 4,000 sq. ft. of space is available as well as access to experimental surgery animal facilities.

The successful applicant will be expected to obtain extramural funding to conduct his/her own research and encourage and develop the research activities of others.

Salary and level of appointment negotiable.

Please send replies, no later than **June 1, 1988** to:

Dr. James D. Friesen, Director, Research Institute.



555 University Avenue, Toronto, Ontario M5G 1X8

**THE HOSPITAL FOR SICK CHILDREN**

## RESEARCH OPPORTUNITIES AGRONOMIC RESEARCH

The Dow Chemical Company, in Midland, Michigan, is a recognized global leader in the agricultural chemical industry. Expanded research efforts in the area of plant genetic engineering have created an immediate need within the Biotechnology Laboratory in the Central Research Department for a:

### PROTEIN CHEMIST

The successful candidate will have a Ph.D. in Protein Chemistry with experience in state-of-the-art techniques for protein isolation, purification and characterization. Research efforts will be directed toward the identification and characterization of agronomically important proteins.

The above candidate must also possess strong communications skills and a desire to carry out independent research while functioning as part of an interdisciplinary research team.

The Dow Chemical Company offers a stimulating work environment and a competitive salary and benefits package.

Qualified applicants should send resume to:

**Technical Recruiting**  
**Department PC-1**  
**P.O. Box 1655**  
**Midland, MI 48641-1655**



The Dow Chemical Company is an Equal Opportunity Employer.

## ENVIRONMENTAL PROGRAM DIRECTOR

The New York State Department of Environmental Conservation is seeking senior-level managers to direct two of its key programs.

THE HAZARDOUS WASTE REMEDIATION PROGRAM is a \$1.2 billion operation with a staff of more than 200. This program manager is responsible for designing and overseeing implementation of clean up activities for all inactive hazardous waste sites in New York State.

THE HAZARDOUS SUBSTANCES REGULATIONS PROGRAM develops rules and regulations pertinent to the treatment, storage, disposal and transportation of hazardous and toxic waste. In addition, this program manager will administer NYS's pesticide control program and the siting process used in selection, construction and operation of low-level radioactive waste disposal facilities.

The candidate we seek must have a college degree and eight years of management experience, at least four of which must be in a field related to environmental conservation / protection or natural resources. Experience in the following is preferred: managing a large and growing staff in the areas of responsibility described for these positions; dealing with the public; and the development of management systems for technically complex regulatory activities.

**SALARY:** \$62,306-\$78,493. Excellent benefits. Applicants should send a resume, which describes the scope and complexity of their management experience, to:

### N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Personnel Office  
50 Wolf Road, Albany, N.Y. 12233

The Department of Environmental Conservation is an  
Equal Opportunity / Affirmative Action Employer

## SENIOR BIOCHEMIST

As a qualified research professional, we invite you to consider this opportunity to work in one of the world's most sophisticated research and development laboratories at Alcon's corporate headquarters in Fort Worth, Texas. Due to our continued growth, we have an immediate requirement for a Senior Biochemist.

You will be working with our Retina Team in research to further understanding of the underlying mechanisms of retinal diseases. Your primary responsibilities will be the development of biochemical strategies for drug discovery and the development of strategies and techniques for proof-of-efficacy of potential therapeutic agents.

Requirements include:

- Ph.D. in Biochemistry or Biochemical Pharmacology
- 5 or more years of related experience which includes expertise in the biochemistry of oxidative stress
- Expertise in the biochemistry of the retina and other ocular tissues would be a distinct advantage; alternatively, you must be interested in developing such expertise

Alcon Laboratories is a \$500 million, multinational pharmaceutical manufacturer offering a competitive starting salary plus comprehensive benefits including medical/-life/dental/vision insurance and an outstanding profit sharing trust plan. In addition, the Fort Worth-Dallas Metroplex offers a wide variety of cultural and recreational activities. For immediate and confidential consideration, please send your curriculum vitae to: **Placement & Development, T1-3 (SB), Alcon Laboratories, Inc., P.O. Box 6600, Fort Worth, TX 76115.**

Equal Opportunity Employer, M/F/V/H • Principals Only, Please





## POSITIONS OPEN

**PHYSICS.** University of South Carolina (USC) Coastal Carolina College is seeking an **ASSISTANT OR ASSOCIATE PROFESSOR OF PHYSICS**. Tenure-track position beginning August 1988. Qualifications include Ph.D. in physics, a demonstrated commitment to teaching undergraduate students, and an interest in scholarly activity. Interaction with colleagues at the Institution is essential as Coastal offers no degree in physics or astronomy. Rank and salary will depend on experience and qualifications. Responsibilities include teaching introductory college physics, physical sciences, and astronomy, as well as laboratories associated with these courses. Computing facilities include a direct link to the Columbia campus IBM 3081 mainframe, an AT&T 3B2/400 minicomputer, and several AT&T and IBM PC's. USC Coastal Carolina College is located approximately 14 miles from Myrtle Beach, South Carolina. Send résumé and three letters of reference by 31 May 1988, to: **Dr. Elizabeth K. Puskar, Dean, School of Natural and Applied Sciences, USC Coastal Carolina College, P.O. Box 1954, Conway, SC 29526.** *USC Coastal Carolina College is an Equal Opportunity/Affirmative Action Employer.*

**PHYSICS.** University of South Carolina (USC) Coastal Carolina College is seeking a **LABORATORY INSTRUCTOR IN PHYSICS**. Position beginning August 1988. Qualifications include a master's degree in physics or related science. Primary responsibilities include teaching of undergraduate laboratories in general physics, engineering physics, and physical sciences in collaboration with the lecture instructor. Occasional opportunity to teach physics may occur. Knowledge of equipment and laboratory needs is required to assume the responsibilities for the position. This is a 9-month, non-tenure-track position. Salary will depend on experience and qualifications. USC Coastal Carolina College is located approximately 14 miles from Myrtle Beach, South Carolina. Send résumé and three letters of reference by 31 May 1988, to: **Dr. Elizabeth K. Puskar, Dean, School of Natural and Applied Sciences, USC Coastal Carolina College, P.O. Box 1954, Conway, SC 29526.** *USC Coastal Carolina College is an Equal Opportunity/Affirmative Action Employer.*

### PLANT GENETICIST UNIVERSITY OF NEBRASKA—LINCOLN (UNL) DEPARTMENT OF AGRONOMY

Seek tenure-leading assistant or associate professor starting this summer with 50% teaching and 50% research responsibilities. Will instruct four-credit introductory genetics course two semesters per year. Advise undergraduate and graduate students and direct graduate student research programs. Research responsibilities will focus on plant genetics and breeding with emphasis on development of tissue culture and transformation system or utilization of these techniques to study fundamental problems of plant molecular biology with applications to improving corn, soybeans, sorghum, wheat, alfalfa, or native grasses. Develop a strong basic research program that will lead to and take advantage of future developments in gene transfer and/or novel selection methods for crop species. Requires Ph.D. in agronomy or other appropriate plant science discipline. Must have demonstrated interest and capability in undergraduate teaching. Training and/or experience in tissue culture and regeneration, transformation systems, and vector construction is necessary. Remit résumé, transcripts and names and addresses of at least three references by 30 May 1988 (or until suitable candidates apply thereafter) to:

**Dr. Darrell W. Nelson, Head  
Department of Agronomy  
University of Nebraska—Lincoln  
Lincoln, Nebraska 68583-0915**

*Affirmative Action/Equal Opportunity Employer*

### POSTDOCTORAL ASSOCIATE

Postdoctoral position available immediately to study the control of protein turnover in eukaryotic cells. This research project involves protein biochemistry, recombinant DNA methodology and cell microinjection. Send curriculum vitae and names of three references to: **Dr. Clare O'Connor, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.**

*An Equal Opportunity/Affirmative Action Employer M/F/H*

## POSITIONS OPEN

### POSTDOCTORAL ASSOCIATE

A position is available immediately to study biochemical adaptations in insects to toxic chemicals. The work requires experience in enzyme biochemistry and analytical chemistry, and interest in working with insects. Send curriculum vitae and names of three references to: **Dr. Lena B. Brattsten, Rutgers University/Cook College, Department of Entomology, J. B. Smith Hall, New Brunswick, NJ 08903.**

**POSTDOCTORAL FELLOW** interested in studying  $Ca^{2+}$ -mediated signal transduction in human platelets. Research involves the identification and characterization of novel calmodulin-binding proteins and investigating the role of  $Ca^{2+}$ -dependent proteolysis as it relates to calmodulin-dependent reactions (see *Biochemistry* 27, 2205). Ph.D. in biochemistry or related discipline with experience in protein chemistry and enzymology. Send letter of application, curriculum vitae, relevant publications, and names of three references to: **Dr. Robert W. Wallace, Department of Pharmacology, University of Alabama at Birmingham (UAB), Birmingham, AL 35294.** *UAB is an Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL FELLOW:** Position available immediately to investigate the sympathetic nervous system using biochemical and molecular biology. Functional changes following exposure to acute and chronic stress will be examined in model systems. Previous experience measuring protein kinase activity, performing Southern/Northern blots, HPLC analysis of phosphopeptides, gel electrophoresis/autoradiography or with colloidal gold-labeled monoclonal antibodies is preferred. The opportunity to learn embryo transfer/genetic engineering techniques is also available. Contact: **Dr. Rick Vulliet, Department of Veterinary Pharmacology and Toxicology, University of California, Davis, CA 95616.**

**POSTDOCTORAL FELLOW**—Position available to study the mechanisms of oxygen toxicity in microorganisms. The focus will be the defensive role of superoxide dismutases and analysis of the protein targets of oxidative stress. Molecular biological, genetic, and protein chemical approaches will be used to study the biochemical basis of oxyradical pathology. Send curriculum vitae and names and addresses of three references to: **Dr. Howard Steinman, Department of Biochemistry, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, NY 10461.**

**POSTDOCTORAL POSITION** available immediately in the Department of Experimental Therapeutics, Roswell Park Memorial Institute. Position requires some experience in recombinant DNA technology. Applicant should have a Ph.D. in biochemistry or molecular biology. Send curriculum vitae and names of three references to: **Dr. Hira L. Gurtsoo, Department of Experimental Therapeutics, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, NY 14263.** *RPMI is an Affirmative Action Employer.*

### POSTDOCTORAL POSITION

Available immediately to study the actions of epidermal growth factor and choriogonadotropin on steroid biosynthesis and gene expression in cultured Leydig cells. Must hold Ph.D. or equivalent degree. Send curriculum vitae and names and addresses of three individuals who can be contacted for reference to: **Dr. Mario Ascoli, The Population Council, 1230 York Avenue, New York, NY 10021.**

A **POSTDOCTORAL POSITION** is available immediately for biochemist, biophysicist or molecular biologist to study the role of metal in the regulation and mechanism of gene expression in both prokaryotes and eukaryotes, particularly in RNA polymerases and metallothioneins. Experience in CD, EPR and NMR techniques is desirable. Send curriculum vitae and three letters of recommendation to: **Professor Felicia Wu, Department of Pharmacology, H.S.C., SUNY Stony Brook, Stony Brook, NY 11794-8651.** *SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK #100.*

## POSITIONS OPEN

### POSTDOCTORAL POSITION

**Dr. Alan Peters**, Chairman and Professor of Anatomy at Boston University School of Medicine, has a postdoctoral position available in his laboratory. The research is concerned with analyzing the organization and synaptic relations of neurons in the cerebral cortex. The techniques used are electron microscopy, Golgi-electron microscopy, and use of antibodies at the light and electron microscopic levels. Interested applicants seeking a postdoctoral position should send their curriculum vitae and the names of appropriate referees to:

**Dr. Alan Peters  
Department of Anatomy  
Boston University School of Medicine  
80 East Concord Street  
Boston, MA 02118**

*Boston University is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** combining research and teaching. The successful candidate will accept a postdoctoral appointment in a laboratory involved in studies on the biochemistry and molecular genetics of antibiotic biosynthesis in streptomycetes. Candidates should have experience in prokaryotic molecular genetics and recombinant DNA methodologies. In addition, the appointee will be expected to teach one-half of an undergraduate course in molecular biology, offered in the fall term of the academic year. The stipend will be \$21,500, and the appointment will begin on 1 August 1988. Interested individuals should submit curriculum vitae and three letters of recommendation to: **Dr. George H. Jones, Department of Biology, The University of Michigan, Ann Arbor, MI 48109-1048.** Applications must be received by 15 June 1988 for consideration. *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available to study mechanism of action and therapeutic applications of lipophilic photosensitizers with antineoplastic and antiviral properties. Applicants with experience in cell biology, membrane biochemistry, experimental hematology, virology and/or photobiology preferred. Earliest starting date 1 July 1988. Please send curriculum vitae and the names of three references to: **Dr. Fritz Sieber, Midwest Children's Cancer Center, Medical College of Wisconsin, P.O. Box 1997, Milwaukee, WI 53201.**

**POSTDOCTORAL POSITION** available to study mechanisms of pancreatic enzyme secretion. A background in biochemistry or cell biology is preferred with experience in protein biochemistry and phosphorylation reactions desirable. Salary range is \$20,000 to \$24,000. Please send curriculum vitae and names of references to: **Dr. Marc Bissonnette, c/o Dennis Lee, Department of Human Resources, Michael Reese Hospital and Medical Center, Lake Shore Drive at 31st Street, Chicago, IL 60616.** *Equal Opportunity Employer M/F.*

**POSTDOCTORAL POSITION** available immediately for molecular biologist to investigate properties of a retrovirus produced by human embryonal carcinoma (EC) cells and mechanisms regulating virus replication and EC cell differentiation under direction of **Dr. David Bronson**. Annual salary ranges from \$20,500 to \$23,920, dependent upon experience. Please mail curriculum vitae with names and telephone numbers of three references to: **Personnel Director (837), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78284.** *Equal Opportunity Employer M/F.*

**POSTDOCTORAL POSITION** available to study receptor labeling with quantitative in vitro autoradiography and in vivo mapping. In vitro methods will examine human and animal brain and include patients with neuropsychiatric disorders. Successful in vivo techniques will be pursued with SPECT and/or PET scanning in human subjects. Send curriculum vitae and names of three references to: **Robert B. Innis, M.D., Ph.D., Departments of Psychiatry and Neuroanatomy, Yale University School of Medicine, 34 Park Street, New Haven, CT 06508.**

# Endocrine Research

Genentech, Inc., a leader in the field of biotechnology, is currently seeking the following professionals to join its Endocrine Group.

## Scientist

A Scientist is sought to specialize in the endocrinology of linear growth. This person will have a national reputation in this area and a proven ability to collaborate productively. A Ph.D. or M.D. with at least 4 years of postdoctoral or professional experience is necessary.

## Research Associate

The successful candidate will have an advanced degree in science and at least 2 years of practical experience in endocrinology or molecular biology. Proof of expertise in some of the following areas is a requisite: assays of hormone and receptor levels, gene expression and transcription analysis, cell and animal modeling, quantitative ability.

Genentech, Inc. offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization. For consideration, send your resume and three letters of reference by May 22, 1988 to Eric Mankuta, Human Resources Department 0429, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. An equal opportunity employer.

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## GROUP LEADER BIOPHYSICS GROUP PHYSICS DIVISION

The Physics Division at the Los Alamos National Laboratory (LANL) invites applications for the position of Group Leader of a newly formed Biophysics Group. The charter for the group is to apply physical science techniques to the life sciences. This group consists of individuals involved in research in biomagnetism, electrophoresis imaging, neutron scattering, and other biophysics interests. The group leader will be responsible for identification and pursuit of activities at the forefront of biophysics research within the group charter and the Laboratory mission and also responsible for proposals for new and continued funding and the resulting briefings with funding agencies. To achieve these goals involves establishing communication, coordination, and cooperation with other groups in the Laboratory that are involved in bioscience activities. Combined with the technical aspects will be responsibility for the administrative aspects of the group.

The successful candidate must have a Ph.D. or equivalent in biophysics or the field of biology with a strong physics background or a Ph.D. or equivalent in physics with a strong biology background. Experience requirements for the position require that the candidate must: have an extensive background in the biophysics area; demonstrate the ability to conduct research in the biophysical discipline and have a broad understanding of a variety of biophysical problems; have knowledge of biophysics areas such as MEG, NMR, CAT, PET, electrophoresis, and with experience in neuroscience field; demonstrate the ability to communicate well in formal and informal discussions on the subject of biophysics. The successful candidate must also be able to demonstrate a record of direct contact with governmental agencies either through briefings or funding interactions and have a successful record of writing funding proposals.

Los Alamos National Laboratory provides excellent compensation and benefits. To apply, submit detailed resume to: Richard O. Garcia (MS P205), Employment Group 80166-AA, Los Alamos National Laboratory, Los Alamos, NM 87545.

Affirmative Action/Equal Opportunity Employer  
U.S. Citizenship Required

University of California

# Los Alamos

## POSITIONS OPEN

**POSTDOCTORAL POSITION IN CELLULAR NEUROBIOLOGY:** NIH-funded position available immediately to study tubulin transport out of the neurites of cultured neurons and neuron-like cells. Projects involve the use of fluorescent tubulin, FRAP, immunoelectron microscopy, and quantitative video image analysis to determine the rates and form (polymer vs. dimer) of tubulin being transported out neurites in vitro. Send curriculum vitae, statement of research interests, and names of three references to: **C. Keith, Department of Zoology, University of Georgia, Athens, GA 30602.** Closing date: 1 October 1988. *Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION—MOLECULAR BIOLOGY AND DNA REPAIR.** Position available immediately, or available late in 1988, to work on cellular responses to DNA damage, particularly with regard to anticancer platinum complexes, characterization of proteins and genes involved in drug resistance and analysis of DNA repair capacity in human populations. Background in cell and/or molecular biology is desirable. Send curriculum vitae and three letters of reference to: **Dr. Alan Eastman, Eppley Institute for Research in Cancer, University of Nebraska Medical Center, Omaha, NE 68105.** Refer to position #689-H in all correspondence. *An Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** available to study cell cycle control of DNA replication and cellular aging in yeast. Research involves techniques in molecular and yeast genetics, and includes analysis of protein-DNA interactions, protein phosphorylation and gene expression. Send curriculum vitae, including bibliography, and names, addresses and telephone numbers of three references to: **Dr. S. Michal Jazwinski, Department of Biochemistry and Molecular Biology, Louisiana State University Medical Center (LSUMC), 1901 Perdido Street, New Orleans, LA 70112.** *LSUMC is an Equal Employment Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITIONS** are available to study  $\text{Ca}^{2+}$ - and cAMP-mediated signal-transduction mechanisms involved in the regulation of ion transport in epithelial tissues. Successful applicants will join a multidisciplinary research program applying electrophysiological, biochemical and molecular techniques to identify the regulatory reactions responsible for impaired chloride and sodium transport in cystic fibrosis. Postdoctoral associates in this program have the potential for appointment to research faculty positions. Individuals with an M.D. or Ph.D. in physiology, biochemistry, cell biology, or a related discipline are invited to submit a letter of application, curriculum vitae, relevant publications, and names of three references to: **Dr. Raymond A. Frizzell, Department of Physiology and Biophysics and Cystic Fibrosis Research Center, University of Alabama at Birmingham, Birmingham, AL 35294.** *UAB is an Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** (two) are available for studying the molecular biology of eukaryotic DNA replication and FGF action in cell proliferation in a well-funded (NIH) and equipped laboratory. Both positions involve enzyme purification, raising antisera, DNA library screening, subcloning, expression, and sequencing. Experience in any of these areas will be helpful. Competitive salary. Please send curriculum vitae and reprints to: **Dr. S. Biswas, Division of Endocrinology, BRB 10-047, University of Maryland Medical School, Baltimore, MD 21201.**

**TWO POSTDOCTORAL POSITIONS** available 1 July to investigate (i) the stability and movement of recombinant genes in bacteria engineered for biocontrol of plant disease and (ii) biochemical and molecular characterization of copper resistance in plant pathogens. Starting salary: \$23,196. Send curriculum vitae and names of three references to: **Dr. Donald A. Cooksey, Department of Plant Pathology, University of California, Riverside, CA 92521.** Telephone: 714-787-3516.

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available to work on characterization of growth factor inhibitors. Research will involve protein chemistry, cell physiology, and molecular biology. Background in protein/peptide biochemistry preferred. Send curriculum vitae and names of three references to: **Dr. Lawrence S. Phillips, Emory University School of Medicine, 69 Butler Street, SE, Atlanta, GA 30303.**

**POSTDOCTORAL POSITIONS** to work on the molecular biology of a malaria parasite vaccine or essential parasite genes. Previous experience in gene cloning and DNA sequencing preferred. Begin as soon as possible. Salary for at least 2 years. Send résumé and three references to: **Dr. Joseph Inselburg, Department of Microbiology, Dartmouth Medical School, Hanover, NH 03756.**

*Dartmouth is an Equal Opportunity Employer.*

**POSTDOCTORAL RESEARCH ASSOCIATE** available in cardiovascular research. Studies on the role of blood components in coronary microvascular integrity and the role of the coronary microcirculation in reperfusion injury after ischemia. Salary range \$21,000 to \$23,000 per year plus fringe benefits. Send curriculum vitae and three letters of recommendation to: **Dr. Paul F. McDonagh, Department of Physiology, Texas Tech University Health Sciences Center, Lubbock, TX 79430.**

**POSTDOCTORAL RESEARCH POSITION** available immediately to study molecular biology of genes encoding proteins associated with neoplastic transformation. Applicants must have primary training in molecular biology; salary commensurate with experience. Send curriculum vitae plus names/addresses of three references to: **Donald Senger, Ph.D., Department of Pathology, Beth Israel Hospital/Harvard Medical School, Boston, MA 02215.** *Equal Opportunity/Affirmative Action Employer.*

## Associate Senior Investigator Bioanalytical Chemistry

The Department of Drug Metabolism at Smith Kline & French Laboratories, located in suburban Philadelphia, Pennsylvania, is seeking a qualified candidate to join an innovative, collaborative and expanding bioanalytical section. Primary responsibilities will include:

The initiation and conduct of a basic research program in drug metabolism and/or an area of personal scientific expertise which will assist in the development and discovery of new drugs; development of quantitative analytical methods for the analysis of pharmaceutical agents and their metabolites in biologic media; study of the pharmacokinetics of drug substances in animals and humans; and the publication of results in the scientific literature.

Desirable qualifications for the successful candidate will include:

- Ph.D. in Analytical Chemistry, Organic Chemistry, Biochemistry or related area. Two or more years of Postdoctoral and/or industrial experience is preferred.
- Experience in quantitative bioanalytical methods development including high-performance liquid chromatography, gas-liquid chromatography and gas chromatography-mass spectrometry applied in the analysis of drugs and their metabolites in biologic media.
- Proven research ability evidenced by an outstanding publications record.
- Excellent communication and interpersonal skills.

We offer an excellent compensation, relocation and benefits package as well as opportunities for personal and professional growth. For confidential review, please forward your C.V. and names of three references to: **Marianne J. Shandy, Manager, Personnel Relations-J0005, Smith Kline & French Laboratories, Research & Development, P.O. Box 1539, King of Prussia, PA 19406-0939.** We are an Equal Opportunity Employer, M/F/H/V.

**SK&F**  
A SmithKline Beckman Company

## Veterinary Physiologist

Collagen Corporation, headquartered in Palo Alto, CA, is dedicated to the research, development, production and marketing of differentiated biomedical products. Our state-of-the-art environment, combined with the clinical relevance of our core technology, presents a unique opportunity for an Veterinary Physiologist.

In this vital position, you will be responsible for the development of animal models to study product candidates for all Corporate research programs. These programs include modulation of the immune system, bone graft substitutes, dermal wound healing and soft tissue augmentation. We are seeking an individual who can take a leadership role in the development and implementation of the company's laboratory animal health program. The position requires a Ph.D in Physiology or an allied medical discipline; a DVM is highly desirable.

Collagen Corporation offers a challenging and stimulating environment where employees enjoy both the autonomy and team support needed to succeed. To learn more about this opportunity and our attractive compensation program, which includes relocation assistance, please send your resume and salary history to: **S. Hansen, Human Resources, Collagen Corporation, 2500 Faber Place, Palo Alto, CA 94303.** We are an equal opportunity employer.



**COLLAGEN**  
CORPORATION

## Molecular Biologists

Baxter Healthcare Corporation, MicroScan Division, develops and manufactures computer controlled electronic instrumentation and disposables used in the clinical laboratory. Research involves systems dealing with rapid identification and susceptibility testing.

Our growth requires the addition of several individuals knowledgeable in gene probe technology. Qualified individuals will be familiar with one or more of a variety of techniques including probe preparation, cloning, nucleic acid chemistry and infection assay development.

We are seeking individuals with a Ph.D., MS or BS degree. Educational background should be in Microbiology, Molecular Biology, Chemistry or a related field with required exposure to probe technology.

Baxter Healthcare Corporation, MicroScan Division, is a leader in the healthcare industry and we offer excellent salaries and benefits to the individuals who qualify for our positions. If you feel that you have the skills we need, send your resume, stating current salary, to: **Vice President of Human Resources, Baxter Healthcare Corporation, MicroScan Division, 1584 Enterprise Blvd., West Sacramento, California 95691.** We are an equal opportunity employer m/f/h/v.

MicroScan Division

**Baxter**



**Epoulon Inc.**

### PHARMACEUTICAL DEVELOPMENT - GROWTH FACTORS -

Epoulon Inc. is engaged in an exciting program of pharmaceutical development for a novel and highly promising class of therapeutic agents. We are a rapidly growing company with the goal of becoming a technology and market leader in the use of growth factor systems for wound healing and bone regeneration.

We seek to build a strong development team to complement our first-rate discovery group. Individuals at all levels in regulatory affairs, clinical research, preclinical science, scale-up and manufacture of topical sterile recombinant biologicals, and other key areas of drug development are sought.

Our facilities are in metropolitan Boston. We are building a team which will cultivate and encourage individual contributions. If you would like to join us in this effort, please respond in confidence to:

Director, Human Resources

**Epoulon Inc.**

121-B Tremont Street

Boston, Massachusetts 02135

## Benefit from Our Reputation.

Syntex has earned its reputation in the pharmaceutical industry for superior research — our research is thorough and our equipment is the most sophisticated available. We currently have two outstanding opportunities available for experienced professionals to join us:

### Toxicologist

You will be responsible for implementing, monitoring and reporting pre-clinical toxicology studies. These studies will be used to support national and international regulatory findings for new drug registrations. Strict adherence to established SOPs and GLPs is required. You should possess a PhD in toxicology or related discipline and 0-3 years' post-doctoral training or industrial toxicology experience, preferably in a pharmaceutical or contract firm. Familiarity with regulatory requirements, good interpersonal and communication skills and the ability to work in a team structure are essential.



**SYNTEX**

### Staff Researcher

#### Bio-Analytical Chemistry

The successful candidate will be responsible for utilizing HPLC in conjunction with laser fluorescence spectroscopy for the quantification of trace concentrations of pharmaceutical products and/or metabolites in various biological fluids. Candidate should be able to operate and maintain an already available laser detection system. A PhD in chemistry or related fields and 1-2 years' experience in laser induced fluorescence spectroscopy is required. Familiarity with laser optics, biological sample purification, microbore HPLC and derivatizations is a plus.

Syntex, on the San Francisco Peninsula, offers a competitive compensation and relocation package which includes an incentive bonus plan. For immediate consideration, please send your resume to: Syntex, Professional Staffing, Dept. KH/SC, 3401 Hillview Avenue, Palo Alto, CA 94304. We are an equal opportunity employer.

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH ASSOCIATES

Four (NIH grant) postdoctoral positions must be filled by 1 September 1988 for 2- to 3-year terms. (i) Molecular Biologist/Molecular Geneticist: Cell culture studies of expression/regulation of shock genes in oxidative stress. (ii) Biochemist/Molecular Biologist: Proteolytic responses to oxidative stress. (iii) Electron Spin Resonance Spectroscopist: Free radical reactions, membrane fluidity, iron-sulfur proteins in oxidative stress. (iv) Exercise Biochemist: Oxidative stress and protein turnover during exercise. Highly qualified and motivated recent Ph.D.'s who wish to join an energetic and productive laboratory should apply. Send curriculum vitae, description of current and future research goals, and reprints of published work to: **Dr. Kelvin J. A. Davies, Institute for Toxicology and Department of Biochemistry, University of Southern California, 1985 Zonal Avenue, HSC-PSC 614-616, Los Angeles, CA 90033. Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL TRAINING IN NEUROBIOLOGY

Opportunities for multi-disciplined research training in neuroscience are available in the laboratories of **Drs. John K. Chapin and Barry D. Waterhouse** (physiology and biophysics), **Jay Schneider** (neurobiology), and **Sheryl S. Smith** (anatomy), Hahnemann University. Currently, the techniques of retrograde tracing of anatomical pathways, microiontophoresis, single and many-unit recording in awake-behaving and anesthetized animals, and tissue-slice preparations are being used to investigate cerebral cortex and basal ganglia function, the extrahypothalamic actions of sex steroids, the role of monoaminergic systems in epilepsy, and CNS sensory circuit function and the electrophysiological actions of abuse-potential substances in local neuronal networks.

Advanced computer systems are employed for neuro-anatomical and neurophysiological data analysis as well as neural network simulations. Previous experience in electrophysiology or neuroanatomy is desirable but not essential. Salaries are competitive. Send résumé and statement of research interests to: **Barry D. Waterhouse, Ph.D., Department of Physiology and Biophysics, Mail Stop 409, Hahnemann University, Broad and Vine, Philadelphia, PA 19102-1192. Affirmative Action Employer.**

**POSTDOCTORATE** in male reproduction to study molecular control of Sertoli cell proliferation and function. Experience with primary cell culture, HPLC, SDS-PAGE electrophoresis, basic hybridoma techniques, and/or recombinant cDNA probes required. Competitive salary and benefits. Send résumé and names of three references to: **Dr. Larry Johnson, Department of Veterinary Anatomy, College of Veterinary Medicine, Texas A&M University, College Station, TX 77843-4458. Affirmative Action/Equal Opportunity Employer.**

**POSTGRADUATE AND FACULTY RESEARCH PROGRAM** at the agency for toxic substances and disease registry-ATSDR is a new agency of the Public Health Service based in Atlanta created to implement health-related sections of laws that protect the public from hazardous wastes or environmental spills of hazardous substances. Immediate openings are available for those with experience in toxicology, epidemiology, health education, and related areas. U.S. citizenship or PRA status is required. For more information and applications contact (please indicate if faculty or postgraduate): **Research Participation Program/ATSDR, University Programs Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117. Telephone: 615-576-3190.**

Attention: A **POSTGRADUATE RESEARCH PSYCHOLOGIST** (postdoctoral) position is available for 3 years, to work on the relation of extrastriate neuronal activity to attention tasks in awake macaques. Applicants should have experience in neurophysiology, especially extracellular single-unit recording, and an interest in psychological processes. Must have a Ph.D. in psychology or brain-related subject, skill in electronics/computing desirable. Salary based on University of California scale. Send curriculum vitae and names of three references to: **G. C. Baylis, Attention: Department of Psychology C-009, University of California, San Diego, La Jolla, CA 92093. Telephone 619-534-2822, by 1 June 1988. Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

### PRODUCT MANAGER PHYSIOLOGICAL RESEARCH AND MEDICAL INSTRUMENTS

Excellent opportunity in established company (50 employees) to launch new division of PC-based computer automation products for scientific and medical applications. Explosive growth potential.

Successful candidate will be a highly motivated and organized "doer" with strong writing and computer skills.

Advanced degree in physiological science desirable. Strong background in electronics a plus.

No previous experience in product management or marketing is required. Chicago location.

Please submit résumé and salary history in confidence to: **Box 66, SCIENCE.**

**RESEARCH ASSISTANT PROFESSOR OF PEDIATRICS.** Division of Pediatric Hematology, University of Pennsylvania School of Medicine, is seeking a Ph.D. with 3 to 5 years of postdoctoral experience in biophysical studies on membrane transport of ions and water for research in sickle cell disease. Experience using image analysis and HPLC preferred. Contact: **Elias Schwartz, M.D., Director, Division of Hematology, The Children's Hospital of Philadelphia, 34th Street and Civic Center Boulevard, Philadelphia, PA 19104. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.**

**RESEARCH ASSOCIATE IN MEMBRANE BIOCHEMISTRY.** The position of research associate is available in the Nephrology Research Unit of the Mayo Clinic, Mayo Medical School, Rochester, Minnesota, beginning in the academic year 1988 to 1989. The research involves studies on the molecular nature of transporters in renal tubular membranes, normal and in pathophysiological states. Applicants, holding a Ph.D. (or equivalent) in biomedical sciences, should have 1 year or more of postdoctoral experiences in membrane biology. Salary is competitive and commensurate with experience. Interested persons should send curriculum vitae and bibliography, three sources of reference, and recent reprints if available to: **Dr. Thomas P. Dousa, Nephrology Research Unit, Mayo Clinic, Mayo Medical School, Rochester, MN 55905. For preliminary inquiries, call collect: 507-284-3705. An Equal Opportunity/Affirmative Action Institution.**

The University of Michigan Medical School, Department of Anesthesiology, has several **RESEARCH INVESTIGATOR/POSTDOCTORAL POSITIONS.** These positions are for basic research, with 2- to 3-year appointments. Applicants with training in cell biology, neurophysiology, or cardiac physiology are invited to apply. Ongoing research in the department includes the interaction of anesthetics with cardiac function and disease states and studies involving the action of volatile anesthetics at the cellular level. Send three copies of curriculum vitae to: **Dr. Paul Knight, Department of Anesthesiology, University of Michigan Medical Center, 1500 East Medical Center Drive, Ann Arbor, MI 48109-0048. A Non-Discriminatory/Affirmative Action/Equal Opportunity Employer.**

The Dana-Farber Cancer Institute is seeking to fill one **RESEARCH POSITION** at the postdoctoral level for an individual interested in studying the regulation of gene expression and neural differentiation by defined growth factors. Our objective is to help establish how transmembrane signaling events, protein kinases, and transcription factors regulate gene expression and other differentiated properties. The position carries a joint appointment in the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School. Experience in molecular biology and/or protein chemistry and an interest in neurobiology are extremely desirable. Send curriculum vitae, a statement of research interests, and the names of three references to: **Dr. John A. Wagner, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. An Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

**RESEARCH ASSOCIATE** to work primarily with maize. Research will emphasize the manipulation of cultured cells and tissues for genetic modification. Previous experience with cereal tissue culture and/or genetic transformation is desirable. A B.S. or M.S. with relevant experience in plant science is required. The position is available 1 July 1988, and applications will be accepted until 15 June 1988, or until the position is filled. Letters of application, curriculum vitae, and names of three references should be sent to: **Ms. Debbie Bosch, Recruitment, United AgriSeeds, Inc., P.O. Box 4011, Champaign, IL 61820.**

**RESEARCH CHEMIST.** A Ph.D. chemist with a strong background in chemical ecology or biogeochemistry to join an interdisciplinary research team studying the ecology of streams, rivers, and watersheds. The applicant's research interest should emphasize natural organic chemicals in ecosystems and preferably processes affecting the translocation and transformation of organic compounds in surface water, groundwater, and soils. Candidates should have broad research interests and a strong research background in theoretical and analytical aspects of organic and inorganic chemistry. The scientist will be expected to develop an independent research program having substantial extramural funding in an area related to research interests. Send résumé, transcripts, research plans, representative publications, and arrange for three reference letters sent by 31 May 1988 to: **Search Committee, Stroud Water Research Center, Academy of Natural Sciences, R.D. #1, Box 512, Avondale, PA 19311. The Academy is an Equal Opportunity/Affirmative Action Employer.**

### DEPARTMENT OF OTORHINOLARYNGOLOGY UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER RESEARCH DIRECTOR

Seeking a Ph.D. in neuroscience to direct our neurotology research laboratories. Should have broad training in neurosciences, and a federally funded research program to study auditory system structure and/or function.

The position offers an opportunity to hire one or more additional individuals.

The position coincides with a current effort of the Health Sciences Center to expand neuroscience across several departments. The research director will have the opportunity to play an important role in this exciting building process.

Interested candidates should send curriculum vitae to: **J. Gail Neely, M.D., F.A.C.S., Chairman, Department of Otorhinolaryngology, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190. Telephone: 405-271-5504.**

*The University of Oklahoma Health Sciences Center is an Equal Opportunity/Affirmative Action Employer.*

### RESEARCH POSITION

The Universities Space Research Association (USRA) has an ongoing need for research scientists and assistants to investigate processes or products which are limited or affected by conditions not shared by the Space and Earth environments (e.g., microgravity, high vacuum, etc.). Candidates should be able to quantify these limitations and effects theoretically and/or experimentally. They will be expected to: develop theories for various heat and mass transport processes encountered during crystal growth and solidification, develop numerical codes and perform analysis on mass redistribution, interface stability, defect formation in structural, electronic, and optical materials, and/or evaluate the effects of residual gravitational forces on materials and processes. Additionally, candidates could provide assistance with ground-based and flight hardware related to studies to ascertain the potential benefits of processing materials in Space. Work will be conducted in the Microgravity Sciences Division of the Space Science Laboratory, NASA/Marshall Space Flight Center. Scientists must have Ph.D. in related field (e.g., materials science or physics). Assistants must have undergraduate degree in related field. The appointment will be for 1 year, renewable. Salary commensurate with experience (minimum: \$33,000 per year for scientists) with full medical and retirement benefits. Send résumé to: **USRA, Dr. James M. Van Alstine, 4950 Corporate Drive, Suite 100, Huntsville, AL 35806. USRA is an Equal Opportunity/Affirmative Action Employer.**

## Postdoctoral Research Fellowship

National Institutes of Health/Public Health Service

Applications are invited for a Postdoctoral Associate in the Neuronal Excitability Section, National Institute of Neurological and Communicative Disorders and Stroke, to study drug action on ionic channels in mammalian central nervous system neurons using whole cell voltage clamp and single channel recording techniques. Preparations available in the laboratory include acutely isolated and cultured brain neurons and various clonal cell lines. Experience in cellular neurophysiology and pharmacology is desirable. Appointments would be as Intramural Research Training Associates (US citizens) or as Visiting Fellow (non-US citizens) for persons within 3 years of receiving their doctoral degree and are renewable annually for a maximum of three years. Starting salary will be \$20,000 to \$23,000 per year depending upon experience. Group health insurance is available. The position is located in Bethesda, Maryland. Interested candidates should send a curriculum vitae and the names of three references to: Michael A. Rogawski, M.D., Ph.D., Medical Neurology Branch, Building 10, Room 5N-248, Bethesda, MD 20892. For information on qualifications and benefits, please contact Ms. Janet Clagett at (301) 496-6334.

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## CHAIRPERSON DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS

Applications and nominations are invited for the Chair of the Department of Physiology and Biophysics of the Robert Wood Johnson Medical School (formerly Rutgers Medical School). The search has been reopened and seeks an individual with a record of outstanding research accomplishments and high scholarly achievement. The position offers opportunities for hiring new faculty and developing research initiatives. Robert Wood Johnson Medical School is located on the campus of Rutgers University. The newly established New Jersey Center for Advanced Biotechnology and Medicine is adjacent to the Medical School with which it is closely associated.

Nominations and applications with curriculum vitae and potential references should be forwarded by *August 1, 1988*, to: **Sidney Pestka, M.D., Chairman of Physiology Search Committee, UMDNJ-Robert Wood Johnson Medical School, (S), 675 Hoes Lane, Piscataway, NJ 08854-5635.**

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## POSITIONS OPEN

### RESEARCH FACULTY POSITION IN BIOLOGICAL OCEANOGRAPHY

The School of Oceanography of the University of Washington invites applications for a research faculty position in biological oceanography beginning in fall 1988. We seek additional strength in the area of zooplankton studies, particularly the role of micro- and mesozooplankton as grazers and recyclers in epipelagic ecosystems. The position carries 2 years of salary support, with rank and salary level depending on candidate's qualifications and experience.

Applicants should submit curriculum vitae and the names of four references to: **Dr. Arthur R. M. Nowell, Director, School of Oceanography, WB-10, University of Washington, Seattle, WA 98195. Telephone: 206-543-6487.** The closing date for applications is 15 May 1988. *The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

**SCIENTIST 1**—A high-energy, sub-atomic particle research laboratory seeks candidates for the position of Scientist 1 to design and operate highly sophisticated, mathematically based computer programs to record and analyze data obtained from high energy physics experiments. Subsequently to interpret the data to reconstruct subatomic particle interactions to deduce their physical properties in order to prove or clarify physics hypotheses.

This position is for 40 hours per week (normally Monday to Friday) and carries an annual salary of \$43,400. As a minimum, applicants should hold a Ph.D. in high energy physics and be able to demonstrate 4 years of experience in high energy physics experimentation with specific emphasis on data acquisition and analysis. Résumés should be directed to: **Illinois Department of Employment Security, 401 South State Street-3 South, Chicago, IL 60605. Attention: Mrs. S. Chalem, Reference No. 7803-S.** *An Employer Paid Ad.*

**SENIOR RESEARCH ASSOCIATE, Ph.D.**—immediate opening in cancer chemoprevention. Would be involved in chemical synthesis of various analogs of a phenolic inhibitor of carcinogenesis, and in biological assessment of the antimutagenic/anticarcinogenic effects of these analogs. Experience in synthetic chemistry, in chromatographic separations, and in structure elucidation by UV, IR, MS, NMR required. Biological techniques in mammalian tissue culture, enzyme analysis, pharmacokinetic assays, and animal bioassays desirable. Minimum of 4 years of postdoctoral experience required. Project funded for long period. Beginning salary \$28,000, plus benefits. Reply to: **Dr. Gary Stoner, Department of Pathology, Medical College of Ohio, HEB, Rm 202, C.S. #10008, Toledo, OH 43699.**

**TOXICOLOGIST PHARMACOLOGIST** to be supervisor and assistant director of university based clinical analytic laboratory in mid-Atlantic region. Position carries faculty appointment at instructor or assistant professor level depending upon qualifications. Expertise in GC, GC/MS, HPLC necessary. *The institution is an Affirmative Action/Equal Opportunity Employer.* Please address inquiries to: **Box 61, SCIENCE.**

### VACANCY ANNOUNCEMENT EPA REGION 8, DENVER

A **TOXICOLOGY POSITION GS-12 (\$33,218)** or **GS-13 (\$39,501)** is open at the U.S. Environmental Protection Agency Region 8, Denver, Colorado. Duties include identifying, quantifying, and explaining human health risks associated with potential exposure to toxic chemicals by all routes; working with other agencies and the general public to minimize risk to public health. Knowledge of human health toxicology is required to qualify. Federal job application packages can be obtained from: **EPA Region 8, 999 18th Street, Suite 500 (8PM-HR), Denver, CO 80202-2405** or call: **303-293-1522.** State that you are applying for the toxicologist vacancy # 88-04 (DA). Applications must be postmarked by 27 May 1988. For information concerning this vacancy, contact: **Pat Smedley, EPA Region 8, at 303-293-1498.**

## POSITIONS OPEN

**STAFF ASSOCIATE:** Electron microscopic technician wanted to manage microscope facility and assist with eye and visual system research at the Edward S. Harkness Eye Institute/Columbia University in New York City. Applicant should have bachelor's degree and at least 4 years of research experience in transmission and scanning electron microscopy and in preparation of materials. Send curriculum vitae and two references to: **Frederick A. Jakobiec, M.D., Edward S. Harkness Eye Institute, 635 West 165th Street, New York, NY 10032.** *Columbia University takes Affirmative Action to insure Equal Opportunity.*

**SENSORY NEUROPHYSIOLOGIST:** Tenure-track possibility for position available at assistant professor level. Serious commitment to collaborative work within the Microsurgical Research Center. Expertise required to characterize electrophysiologically the properties of central axons which have regenerated along peripheral nerve implants. Preference given to applicants experienced in spinal cord neurophysiology and tract-tracing and histological techniques. Please send curriculum vitae with three letters of recommendation to: **Dr. Julia K. Terzis, Microsurgical Research Center, Eastern Virginia Medical School, P.O. Box 1980, Norfolk, VA 23501.** *Affirmative Action/Equal Opportunity Employer.*

### TERRESTRIAL MICROBIAL ECOLOGY

The Department of Soil Science and the Department of Microbiology of the University of Minnesota, Minneapolis-St. Paul, invite applications for a joint appointment, full-time tenure-track position in Soil Science at the **ASSISTANT PROFESSOR** level. Responsibilities include teaching and research. Appointee will also participate in the University Microbial Ecology graduate program. We are looking for an individual with the potential for national leadership in the area of Terrestrial Microbial Ecology. A Ph.D. in soil science, microbiology, ecology, or related fields, and knowledge of terrestrial environments and microbial ecology are required. Interested persons should submit a letter of application with a statement of current and planned professional interests, curriculum vitae, graduate academic transcript, reprints, and three letters of reference to: **Dr. J. A. Molina, Chairman of Search Committee, Department of Soil Science, University of Minnesota, St. Paul, MN 55108.** Closing date is 15 June 1988. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

### WILDLIFE MANAGEMENT

The Department of Biological Sciences of l'Université du Québec à Montréal is seeking candidates for a **TENURE-TRACK POSITION** in wildlife management. Candidates must have a Ph.D. in this field as well as postdoctoral experience. Proven ability in research and teaching in wildlife management is required. Teaching responsibilities (in French) will be in the fields of wildlife and ecological management, general ecology, animal ecology and zoology (depending on the candidate's specialty). The position is to be filled by 1 September 1988. Send curriculum vitae (in French) and three letters of reference, before 25 May 1988, to: **Dr. Jean Gingras, directeur, Département des sciences biologiques, Université du Québec à Montréal, C. P. 8888, Succursale "A", Montréal (Québec), H3C 3P8, Canada.**

## GRADUATE TRAINING

**POSTDOCTORAL RESEARCH TRAINING FELLOWSHIPS** in endocrinology, metabolism, and diabetes for M.D. or Ph.D. graduates are available at Emory University School of Medicine utilizing ten training faculty in six basic and clinical departments. Must be U.S. national or permanent resident. M.D. applicants must have U.S. residency experience. Send curriculum vitae, statement of research and career objectives, and two letters of reference to: **Lawrence S. Phillips, M.D., Program Director, Emory University School of Medicine, 69 Butler Street, S.E., Atlanta, GA 30303.** *An Equal Opportunity Employer.*

## POSITIONS OPEN

### UROLOGY FACULTY POSITION

The Department of Urology, Tulane University School of Medicine in New Orleans is seeking an individual with research interests in reproductive biology. The candidate should have training in all aspects of clinical andrology (computerized semen analysis, immunologic studies and hormonal assays). A Ph.D. scientist is needed with an interest in reproductive biology and immunology. The candidate should be prepared to participate in resident teaching, assist in research projects, and should be capable of interdigitating research efforts with clinical faculty, as well as working independently on related basic projects.

Send curriculum vitae and bibliography to:

**Wayne J. G. Hellstrom, M.D.,  
Department of Urology  
Tulane University School of Medicine  
1430 Tulane Avenue  
New Orleans, LA 70112  
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## SUMMER INSTITUTE

**SIXTH SUMMER INSTITUTE** in Risk Management in Environmental Health and Protection (at New York University) 27 to 30 June 1988. Legal, financial, and political issues; risk perception and communications; quantitative risk assessment. Chemical releases emphasized. Bachelor's degree or equivalent required. A second Institute will be held at the University of Southern California, 29, 30 November and 1, 2 December, 1988. Write: **Summer Institute in Risk Management/Graduate School of Public Administration/New York University/4 Washington Square North, New York, NY 10003;** or call: **212-998-7432, 7430.**

## FELLOWSHIPS

### POSTDOCTORAL FELLOWSHIP AT THE UNIVERSITY OF MIAMI ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE IN MARINE AND ATMOSPHERIC CHEMISTRY

A postdoctoral fellowship is available for up to 2 years starting in September, 1988. Applications are welcome in any facet of research related to Marine and Atmospheric Chemistry. Areas of current research include: global atmospheric transport, including sulfur and nitrogen species; analysis and turnover of trace organics in seawater; gas phase reaction kinetics; volatile sulfur compounds in atmosphere and oceans; biotransformations of aromatics and sulfur compounds; aqueous and gaseous photochemistry; thermodynamic and kinetic processes in seawater; tracer studies for modeling ocean circulation and mixing processes.

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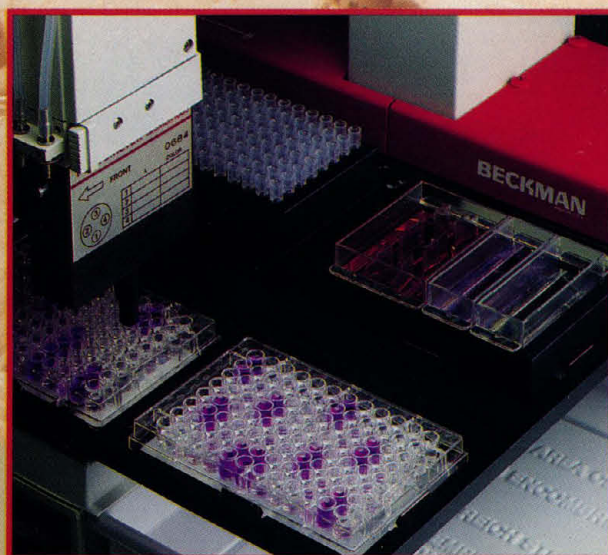
Salary: \$26,000. Apply to: **Dr. J. M. Prospero, Chairman, Division of Marine and Atmospheric Chemistry, Rosenstiel School of Marine and Atmospheric Science, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149-1098.**

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**POSTDOCTORAL FELLOWSHIP** available for research training in field of cellular physiology and pathophysiology of renal membrane transport and its regulation. Applicants must hold a doctoral degree and meet residence requirements for stipend award by NIH Training Grant. Send curriculum vitae and names of three references to: **Thomas P. Dousa, M.D., Ph.D., Nephrology Research Unit, Mayo Clinic and Foundation, Rochester, MN 55905.** For preliminary inquiries, call collect: **507-284-3705.** *An Equal-Opportunity/Affirmative Action Institution.*



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