

The focus in all of these discussions is on methods, but applications to laser-molecule (or, more generally, electromagnetic radiation-molecule) interactions appear throughout, providing an important connection with real physical systems that makes this book much more than just a compendium of mathematical methods. In addition there is a lengthy introductory paper by J. O. Hirschfelder that provides a general survey of the theoretical description of laser-molecule interactions. Although the book suffers from the heterogeneity of contributors, the treatment of common themes within an interdisciplinary framework makes it a valuable contribution.

GEORGE C. SCHATZ
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Books Received

About Faces. Terry Landau. Doubleday, New York, 1989. vi, 294 pp., illus. \$29.95; paper, \$14.95.

The ACLS Survey of Scholars. Final Report of Views on Publications, Computers, and Libraries. Herbert C. Morton and Anne J. Price with Robert Cameron Mitchell. American Council of Learned Societies, Washington, DC, and University Press of America, Lanham, MD, 1989. x, 137 pp. \$27.50; paper, \$14.75.

Action in Social Context. Perspectives on Early Development. Jeffrey J. Lockman and Nancy L. Hazen, Eds. Plenum, New York, 1989. xvi, 310 pp., illus. \$42.50. Perspectives in Developmental Psychology.

Activation and Functionalization of Alkanes. Craig L. Hill, Ed. Wiley-Interscience, New York, 1989. xii, 372 pp., illus. \$49.95.

Advanced Topics in the Theory of Dynamical Systems. G. Fusco, M. Ianelli, and L. Salvadori, Eds. Academic Press, San Diego, CA, 1989. x, 266 pp. \$29.95. Notes and Reports in Mathematics in Science and Engineering, vol. 6. From a conference, Trento, Italy, June 1987.

Adventures in Celestial Mechanics. A First Course in the Theory of Orbits. Victor G. Szebehely. University of Texas, Austin, 1989. xvi, 175 pp., illus. \$27.50.

Affect and Mathematical Problem Solving. A New Perspective. Douglas B. McLeod and Verna M. Adams, Eds. Springer-Verlag, New York, 1989. x, 268 pp., illus. \$39.

Anomalies in Geology. Physical, Chemical, Biological. William R. Corliss, Compiler. The Sourcebook Project, Glen Arm, MD, 1989. vi, 329 pp., illus. \$18.95. A Catalog of Geological Anomalies.

APL. A Problem-Oriented Introduction. Michael A. Curth and Helmut Edelmann. Horwood, Chichester, U.K., and Halsted (Wiley), New York, 1989. x, 180 pp. \$49.95. Ellis Horwood Series in Computers and Their Applications. Translated from the German edition (Munich, 1986) by Derek Lewis.

Artificial Intelligence and Intelligent Systems. The Implications. David Anderson. Horwood, Chichester, U.K., and Halsted (Wiley), New York, 1989. 178 pp. \$49.95. Ellis Horwood Series in Artificial Intelligence Foundations and Concepts.

Band Structure Engineering in Semiconductor Microstructures. R. A. Abram and M. Jaros, Eds. Plenum, New York, 1989. xii, 388 pp., illus. \$85. NATO Advanced Science Institutes Series B, vol. 189. From a workshop, Il Ciocco, Italy, April 1985.

Beck and Braithwaite's Invertebrate Zoology. A Laboratory Manual. 4th ed. Robert L. Wallace, Walter K. Taylor, and James R. Litton, Jr. Macmillan, New York, 1989. xii, 337 pp., illus. Paper. \$20.

Bergey's Manual of Systematic Bacteriology. Vol. 3. James T. Staley *et al.*, Eds. William and Wilkins, Baltimore, 1989. xxviii pp. + pp. 1601-2298, illus., + index. \$82.50.

Biocatalysis and Biomimetics. James D. Buntington and Douglas S. Clark, Eds. American Chemical Society, Washington, DC, 1989. xiv, 169 pp., illus.

\$39.95. ACS Symposium Series, vol. 392. From a symposium, Toronto, Ontario, June 1988.

Clinical Ethics. Theory and Practice. Barry Hoffmaster, Benjamin Freedman, and Gwen Fraser, Eds. Humana, Clifton, NJ, 1989. xii, 237 pp. \$35. Contemporary Issues in Biomedicine, Ethics, and Society. Based on a conference, London, Ontario, April 1986.

Creation of the Universe. Fang Li Zhi and Li Shu Xian. World Scientific, Teaneck, NJ, 1989. xii, 180 pp., illus. \$41; paper, \$25. Translated from the Chinese edition (1987) by T. Kiang.

Cults. Faith, Healing and Coercion. Marc Galanter. Oxford University Press, New York, 1989. x, 230 pp. \$22.95.

Current Trends in Geomathematics. Daniel F. Merriam, Ed. Plenum, New York, 1988. xii, 334 pp., illus. \$75. Computer Applications in the Earth Sciences. From a symposium, Moscow, U.S.S.R., Aug. 1984.

Iodine and the Brain. G. Robert DeLong, Jacob Robbins, and Peter C. Condliffe, Eds. Plenum, New York, 1989. x, 379 pp., illus. \$79.50. From a conference, Bethesda, MD, March 1988.

Laboratory Studies of Chick, Pig, and Frog Embryos. Guide and Atlas of Vertebrate Embryology. Gary C. Schoenwolf and Ray L. Watterson. 6th ed. Macmillan, New York, 1989. xviii, 237 pp., illus. Paper, \$17.

Linear Algebra and Its Applications. Vol. 1, A First Course. D. H. Griffel. Horwood, Chichester, U.K., and Halsted (Wiley), New York, 1989. xiv, 289 pp. \$49.95. Mathematics and Its Applications.

The Liquid State and Its Electrical Properties. E. E. Kunhardt, L. G. Christophorou, and L. H. Luessen, Eds. Plenum, New York, 1988. xiv, 573 pp., illus. \$110. NATO Advanced Science Institutes Series B, vol. 193. From an institute, Sintra, Portugal, July 1987.

Monte Carlo Transport of Electrons and Photons. Theodore M. Jenkins, Walter R. Nelson, and Alessandro Rindi, Eds. Plenum, New York, 1988. xviii, 638 pp., illus. \$115. Ettore Majorana International Science Series, vol. 38. From a school, Erice, Italy, Sept.-Oct. 1987.

Morality and Imagination. Paradoxes of Progress. Yi-Fu Tuan. University of Wisconsin Press, Madison, 1989. xii, 209 pp. \$32.50; paper, \$11.95.

The Myth of the Welfare State. Jack D. Douglas. Transaction Books, New Brunswick, NJ, 1989. x, 505 pp. \$34.95.

The Neural Crest. Including a Facsimile Reprint of *The Neural Crest* by Sven Hörstadius. Brian K. Hall. Oxford University Press, New York, 1988. viii, 303 pp., illus. \$60.

Neuropsychological Function and Brain Imaging. Erin D. Bigler, Ronald A. Yeo, and Eric Turkheimer, Eds. Plenum, New York, 1989. xvi, 354 pp., illus. \$49.50. Critical Issues in Neuropsychology.

New Antiviral Strategies. S. R. Norrby *et al.*, Eds. Churchill Livingstone, Edinburgh, 1989. xii, 273 pp., illus. £19.95. Frontiers of Infectious Diseases. From a symposium, Brocket Hall, U.K., April 1988.

New Aspects of High-Energy Proton-Proton Collisions. A. Ali, Ed. Plenum, New York, 1988. xii, 434 pp., illus. \$95. Ettore Majorana International Science Series, vol. 39. From a workshop, Erice, Italy, May-June 1987.

New Concepts in Blood Formation and Cell Generation in Malignant and Benign Tissues. Vol. 1. Hemprova Ghosh McDonald. Diagnostic and Cell Research Institute, Waco, TX, 1989. 111 pp., illus. \$95.

1988 IUCN Red List of Threatened Animals. International Union for Conservation of Nature and Natural Resources, Cambridge, U.K., 1988 (U.S. distributor, Columbia University Press, New York). xviii, 154 pp. Paper, \$10.

Organelles. Mark Carroll. Guilford, New York, 1989. xviii, 202 pp., illus. \$40; paper, \$18.95. Molecular Cell Biology.

The Path of No Resistance. The Story of the Revolution in Superconductivity. Bruce Schechter. Simon and Schuster, New York, 1989. 200 pp. + plates. \$18.95.

Peptide Hormones as Prohormones. Processing, Biological Activity, Pharmacology. Jean Martinez, Ed. Horwood, Chichester, U.K., and Halsted (Wiley), New York, 1989. x, 364 pp., illus. \$115. Ellis Horwood Series in Pharmacological Sciences.

Perspectives in Biochemistry. Vol. 1 Hans Neurath, Ed. American Chemical Society, Washington, DC, 1989. xii, 259 pp., illus. Paper, \$14.95. Thirty-six review articles reprinted from 1987 and 1988 issues of *Biochemistry*.

Perspectives in Human Biology. N. W. Bruce, L. Freedman, and W. F. C. Blumer, Eds. Published for the Australasian Society for Human Biology and the Octagon Lectures Committee by the Centre for Human

Biology, University of Western Australia, Nedlands, Australia, 1988. xx, 306 pp., illus. Paper. \$A36; paper, \$A18. Proceedings of the Australasian Society for Human Biology, no. 1. From a conference, Nedlands, Australia, 1987.

Perspectives on Children's Testimony. S. J. Ceci, D. F. Ross, and M. P. Toglia, Eds. Springer-Verlag, New York, 1989. xii, 259 pp. \$45.

Phosphorus in Freshwater Systems. Gunnar Persson and Matts Jansson, Eds. Kluwer, Norwell, MA, 1989. vi, 340 pp., illus. \$142.50. Developments in Hydrobiology, vol. 48. From a symposium, Uppsala, Sweden, Sept. 1985.

Photorefractive Materials and Their Applications II. Survey of Applications. P. Günter and J.-P. Huignard, Eds. Springer-Verlag, New York, 1989. xviii, 367 pp., illus. \$75. Tropics in Applied Physics, vol. 62.

Plasma Diagnostics. Vol. 1, Discharge Parameters and Chemistry. Orlando Auciello and Daniel L. Flamm, Eds. Academic Press, San Diego, CA, 1989. xii, 456 pp., illus. \$89.50. Plasma-Materials Interactions.

Platelet Immunology. Molecular and Clinical Aspects. Thomas J. Kunicki and James N. George, Eds. Lippincott, Philadelphia, 1989. xiv, 498 pp., illus. \$85.

Radiation Detection and Measurement. Glenn F. Knoll. 2nd ed. Wiley, New York, 1989. xx, 754 pp., illus. \$63.95.

Radlowave Propagation. M. P. M. Hall and L. W. Barclay, Eds. Published for the Institution of Electrical Engineers by Peregrinus, London, 1989 (U.S. distributor, IEEE, Piscataway, NJ). xviii, 278 pp., illus. \$58. IEEE Electromagnetic Waves Series, vol. 30.

A Random Model for Plant Cell Population Growth. M. C. M. de Gunst. Centrum voor Wiskunde en Informatica, Amsterdam, The Netherlands, 1989. viii, 152 pp., illus. Paper, Dfl. 24.20. CWI Tract 58.

Rare Birds of the World. Guy Mountfort. Greene (Penguin), New York, 1989. 256 pp., illus. \$29.95.

Rheological and Thermophysical Properties of Greases. G. B. Froishteter *et al.* G. V. Vinogradov, Ed. Gordon and Breach, New York, 1989. xii, 288 pp., illus. \$129. Translated from the Russian by G. E. Miram.

Technological Transformation. Contextual and Conceptual Implications. Edmund F. Byrne and Joseph C. Pitt, Eds. Kluwer, Norwell, MA, 1989. xii, 314 pp., illus. \$89. Philosophy and Technology, vol. 5. From a conference, Blacksburg, VA, July 1987.

The Tenth Dimension. An Informal History of High Energy Physics. Jeremy Bernstein. McGraw-Hill, New York, 1989. viii, 164 pp. Paper, \$9.95.

Terrestrial Space Radiation and Its Biological Effects. Percival D. McCormack, Charles E. Swenberg, and Horst Bücker, Eds. Plenum, New York, 1988. x, 864 pp., illus. \$129.50. NATO Advanced Science Institutes Series A, vol. 154. From an institute, Corfu, Greece, Oct. 1987.

Theory of Meson Interactions with Nuclei. Judah M. Eisenberg and Daniel S. Koltun. Wiley-Interscience, New York, 1989. xii, 403 pp., illus. Paper, \$29.95. Reprint, 1980 ed.

Thermal Accommodation and Adsorption Coefficients of Gases. S. C. Saxena and R. K. Joshi. Hemisphere, New York, 1989. xxxvi, 412 pp., illus. \$95. CINDAS Data Series on Material Properties, vol. 2-1.

Thermodynamic Properties of Individual Substances. Vol. 1, Elements O, H(D, T), F, Cl, Br, I, He, Ne, Ar, Kr, Xe, Rn, S, N, P, and Their Compounds. L. V. Gurvich, I. V. Veyts, and C. B. Alcock, Eds. 4th ed. Hemisphere, New York, 1989. 2 vols. Pt. 1, Methods and Computation. xxx, 551 pp. Pt. 2, Tables. xii, 340 pp. \$180. Translated from the Russian edition (Moscow, 1978).

Thermodynamics. An Advanced Textbook for Chemical Engineers. Gianni Astarita. Plenum, New York, 1989. xii, 444 pp., illus. \$69.50.

Trace Elements in Man and Animals 6. Lucille S. Hurley *et al.*, Eds. Plenum, New York, 1988. xxvi, 724 pp., illus. \$115. From a symposium, Pacific Grove, CA, May-June 1987.

Ultramafic Rocks of the Appalachian Piedmont. Steven K. Mitwede and Edward F. Stoddard, Eds. Geological Society of America, Boulder, CO, 1989. vi, 103 pp., illus. Paper, \$22.50. GAS Special Paper 231. Based on a symposium, Norfolk, VA, 1987.

Vascular Dynamics. Physiological Perspectives. N. Westerhof and D. R. Gross, Eds. Plenum, New York, 1989. x, 320 pp., illus. \$75. NATO Advanced Science Institutes Series A, vol. 166. From a workshop, Acquafredda di Maratea, Italy, June 1988.

X-ray Spectroscopy in Atomic and Solid State Physics. J. Gomes Ferreira and M. Teresa Ramos, Eds. Plenum, New York, 1988. viii, 423 pp., illus. \$85. NATO Advanced Science Institutes Series B, vol. 187. From an institute, Vimeiro, Portugal, Aug.-Sept. 1987.

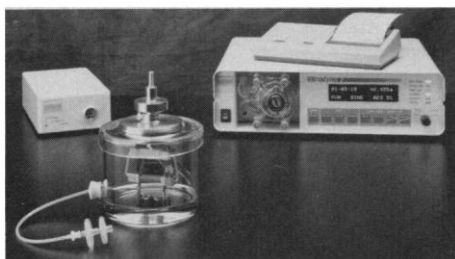
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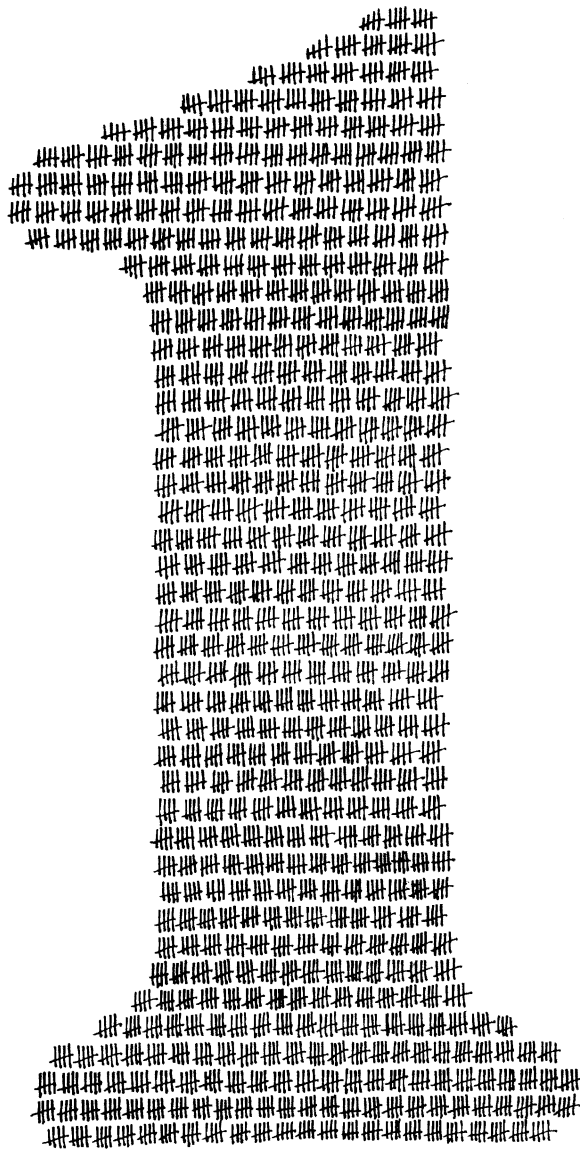
Literature

A 40-page 1989 *Research Products Catalog* details a line of immunoassay kits and Bio-Mag Magnetic Separation Particles. Includes prices, chemical and physical properties, and technical information. Advanced Magnetics. Circle 502.

Fall 1989 Supplement nuclear spectroscopy catalog contains more than 50 new products, including OMNIGAM Advanced Germanium Spectrum Analysis software, the Model 935 Quad 200-MHz Constant-Fraction Discriminator, and germanium gamma-ray detectors that customers can repair themselves after radiation damage. EG&G ORTEC. Circle 503.

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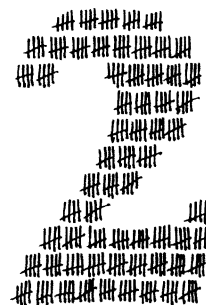
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ANATOMIST

The Department of Anatomy, University of Saskatchewan, College of Medicine, invites applications for a faculty appointment at the rank of assistant professor. Applicants must have postdoctoral experience with a strong research program in anatomical sciences; however, research in functional anatomy is preferred. The successful candidate will be responsible for teaching gross anatomy to physical therapy students. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents.

Application, including curriculum vitae, names of three referees, and an outline of proposed research and previous teaching experience should be submitted by 1 December 1989 to:

Dr. G. D. Burkholder
Department of Anatomy
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Yale University. The Department of Chemistry invites applications for a position at the **ASSISTANT PROFESSOR** level, effective academic year 1990. We seek bright teacher-scholars who show promise for developing outstanding research programs in experimental physical chemistry.

Applicants should send curriculum vitae, a statement of research interests and plans, and should arrange for the submission of three letters of recommendation. All materials should be received by 15 November 1989. Send applications to: Professor Donald M. Crothers, Chairman, Faculty Search Committee, P.O. Box 6666, New Haven, CT 06511-8118. Yale University is an Equal Opportunity/Affirmative Action Employer.

The Department of Psychology at Northwestern University, Evanston, Illinois, is searching to fill tenure-track positions at the **ASSISTANT PROFESSOR** level in the following areas for the fall of 1990.

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Candidates should send a statement of research interest, curriculum vitae, copies of recent publications, and three letters of recommendation to: The Clinical, Cognitive, or The Social Search Committee at the Department of Psychology, Northwestern University, Evanston, IL 60208-2710, by 15 November 1989.

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ASSISTANT PROFESSOR

The Department of Laboratory Medicine has an opening at the Assistant Professor level, either in the Adjunct or In-Residence series, depending on the candidate's qualifications, in the newly formed Division of Molecular Diagnostics. Minimum requirements include an M.D. or Ph.D. with a background interest and experience in the molecular basis of disease and molecular diagnosis. The candidate is expected to work closely with clinicians, be technically innovative, and be capable of transferring technology from research to the clinical laboratory setting. Experience with instrumentation development is desirable. The candidate should also have his/her own research project, and be able to generate independent research support. Interested individuals should write to: **Y. W. Kan, M.D., Chair, Search Committee, University of California, San Francisco, CA 94143-0724.** UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply. Deadline for receipt of applications is 1 November 1989.

The Department of Microbiology, University of Minnesota, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level available 1 April 1990. Candidates are expected to develop independent research programs in the general area of molecular pathogenesis, immunology and virology and to obtain extramural support; to develop and teach graduate/undergraduate courses in relevant areas; to supervise and train Ph.D. students, and to participate in appropriate departmental and collegiate activities. Candidates will have the Ph.D. or M.D. degree and at least 2 years of postdoctoral experience. Closing date for receipt of applications is 31 December 1989, but earlier applications are encouraged and will be considered promptly.

Candidates should submit curriculum vitae, summary of research interests, and the names of three referees to: **Peter Southern, Ph.D., Chairman of the Search Committee, Department of Microbiology, University of Minnesota Medical School, Box 196 UMMC, 420 Delaware, S.E., Minneapolis, MN 55455.**

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

ASSISTANT PROFESSORS—cell biology. The Cell Biology and Anatomy Department has four newly created positions open for tenure-track assistant professors in cell biology. A major research focus of the department will concern intracellular protein translocation, vesicular transport, and membrane and organelle assembly, approached with molecular and genetic techniques. Freshly renovated space and extensive research support facilities will be available. Applicants working in other research areas will be considered. Some of these appointments may be made at the rank of associate or full professor if appropriate. Ph.D.'s with demonstrated research prowess should send curriculum vitae, one-page summary of research plans, recent publications, and the names, addresses, and telephone numbers of three references to: **Dr. Paul B. Lazarow, Chairman, Cell Biology and Anatomy, Box 1007, The Mount Sinai School of Medicine, Fifth Avenue and 100th Street, New York, NY 10029-6574.** First priority will be given to applications received by 1 November. *The Mount Sinai School of Medicine is an Equal Opportunity Employer; women and minorities are encouraged to apply.*

UNIVERSITY OF COLORADO HEALTH SCIENCES CENTER ASSISTANT/ASSOCIATE PROFESSOR

The Department of Obstetrics and Gynecology is seeking Ph.D. candidates for a position in the Reproductive Endocrinology Division to begin 1 December 1989. The position entails establishing a laboratory and conducting basic scientific research in collaboration with an interdisciplinary group of clinical scientists. Both animal and human material will be available. Requirements include a Ph.D. in reproductive biology or related field. Postdoctoral experience is preferred. Preference will be given to applicants with experience in andrology and sperm physiology/function or cryopreservation. Salary and start-up funds are supported. Please submit letter of application and curriculum vitae to: **University of Colorado HSC, Department of Ob/Gyn, 4200 East 9th Avenue B-198, Denver, CO 80262.** Closing date is 1 November 1989. *UCHSC is an Affirmative Action/Equal Employment Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR. The Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, intends to make an appointment at the assistant professor level to begin in the fall of 1990. We are actively seeking applicants with strong research backgrounds in molecular biology, biochemistry, and molecular pharmacology, including membrane biology, structural biology, and gene regulation. Applicants are invited to send curriculum vitae, bibliography, statement of research plans, and list of three to four referees to: **Professor Christopher T. Walsh, Chairman, Biological Chemistry and Molecular Pharmacology, Search Committee, Harvard Medical School, 240 Longwood Avenue, Boston, MA 02115.** Women and minorities are encouraged to apply. *Harvard University is an Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF BIOCHEMISTRY. The Department of Chemistry and Biochemistry at the University of Maryland Baltimore County invites applications and nominations for a tenure-track faculty position. The successful candidate is expected to develop a strong, funded research program in any area of modern biochemistry and will participate in the department's M.S. and Ph.D. programs in chemistry, biochemistry, and molecular and cell biology. Qualifications include Ph.D. or equivalent degree. Postdoctoral experience is desirable. Excellent facilities for research are available including mass spec, NMR, fluorescence and CD spectroscopy as well as all the normal support facilities necessary for modern biochemical research. Send curriculum vitae, statement of research plans, and three letters of recommendation to: **Search Committee Chairman, C. Allen Bush, Department of Chemistry, University of Maryland Baltimore County, Baltimore, MD 21228.** UMBC is an Equal Opportunity/Affirmative Action Employer and applications from qualified women, minorities, and disabled candidates are especially encouraged. Applications will be received until a suitable candidate is found.

ASSISTANT PROFESSOR (TENURE-TRACK). Qualifications: Ph.D. in the biological sciences (cell biology/cell physiology). Some teaching experience and evidence of scholarly ability is required. Duties will include teaching: cell biology, portions of a biotechnology program and a course in his/her area of expertise. Expertise in electron microscopy is desirable but not required. The successful applicant will be expected to develop a funded research program. There are opportunities for collaborative research in the areas of aquaculture, cancer research, cardiovascular physiology, and reproductive endocrinology. Forward curriculum vitae, and have three letters of reference sent by 23 October 1989 to: **Office of Faculty/Staff Relations, SUNY College at Brockport, Brockport, NY 14420.** *Affirmative Action/Equal Opportunity Employer.*

ASSISTANT/ASSOCIATE PROFESSOR, Institute of Molecular Biology and Biochemistry, Simon Fraser University. Applications are being accepted for a **DEVELOPMENTAL GENETICIST.** Candidates should be applying genetic and/or modern molecular approaches to model developmental systems.

Postdoctoral experience and demonstrated research potential are required. Appointment and teaching duties will be in the Department of Biosciences. The Institute was recently established to stimulate expanded graduate training and research and will be occupying a new building in 1992. Set-up funding is available. Applicants should forward a complete curriculum vitae, reprints of most significant recent publications, and three letters of reference to: **Dr. Bruce Brandhorst, Director, Institute of Molecular Biology and Biochemistry (I.M.B.B.), Simon Fraser University, Burnaby, B.C. V5A 1S6, Canada.** Applications will be evaluated beginning 1 December 1989. *Simon Fraser University offers equal employment opportunities to qualified applicants. While all are encouraged to apply, Canadian law requires that consideration in the first instance be given to applicants eligible for employment in Canada at the time of application.*

BOTANIST (Biogeography and Species Biology) to study vulnerability of U.S. plant species to global climatic change: library research and database development, then analysis and report. Graduate degree in plant systematics or related field, and familiarity with U.S. biogeography and floristic literature required. Position starts by 1 December 1989, funded 20 months. Contact: **Larry E. Morse, The Nature Conservancy, 1815 North Lynn Street, Arlington, VA 22209,** by 16 October 1989.

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR MOLECULAR BIOLOGIST

Clarkson University invites applicants, actively pursuing research in microbial molecular biochemistry, to join a young, energetic, and expanding Department of Biology. Clarkson provides competitive salaries plus excellent research space and start-up funds. The University, a private institution emphasizing engineering and science education, is located in a college-town environment of four nearby colleges with a total population of approximately 14,000 students and faculty. Applicants should send a current curriculum vitae, reprints, statement of research and teaching interests, and names of three references to: **Dr. A. E. Linkins, Chairman, Department of Biology, Clarkson University, Potsdam, NY 13676.** Deadline for application is 30 October 1989 or until position is filled. *Clarkson University is an Equal Opportunity/Affirmative Action Employer.*

The Department of Microbiology, University of Hawaii invites applications for a tenure-track (9-month) **ASSISTANT/ASSOCIATE PROFESSOR** position in the area of prokaryotic genetics to begin 1 August 1990. A Ph.D. in microbiology or a related field; at least 2 years of postdoctoral experience, a strong record of research funding or potential for funding is required, and a strong attraction to teach at both the undergraduate and graduate levels in microbial genetics and microbiology. Application deadline: 1 December 1989. Submit curriculum vitae, names of at least three references, and representative publications, if available to: **Dr. Philip C. Loh, Chairman, Department of Microbiology, University of Hawaii, Honolulu, HI 96822.** Telephone: 808-948-8603. *An Equal Opportunity Employer.*

BEHAVIORAL NEUROSCIENCE OPENING. Tenure-track position at full, associate, or assistant professor level. Area of specialty is open, but someone whose research will add to the existing strengths in psychopharmacology, neural basis of learning and memory, or behavioral ecology/neuroethology will be of special interest. Send curriculum vitae, three letters of reference, and copies of most important publications by 1 December 1989 to: **Professor Charles F. Schmidt, Chairman, Department of Psychology, Rutgers University, New Brunswick, NJ 08903.** Rutgers is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMISTS/CHEMISTS to conduct structural analyses of complex carbohydrates using GC, GC-MS, LC, LC-MS and NMR techniques. Experience with at least one of three techniques required. Two technician and one postdoctoral positions are available. The applicants for the technician positions are required to have a B.S. in chemistry or biochemistry, M.S. is preferred. Salary negotiable depending on experience. Applications will be reviewed after 23 October 1989. Send to: **Dr. Russell Carlson, Complex Carbohydrate Research Center, The University of Georgia, 220 Riverbend Road, Athens, GA 30602.** *An Affirmative Action/Equal Employment Opportunity Institution.*

CELLULAR AND MOLECULAR ENDOCRINOLOGY POSTDOCTORAL RESEARCH ASSOCIATE

To study control of hormone secretion at the single cell level by use of reverse hemolytic plaque assays in combination with recombinant DNA technologies and other modern biochemical and microscopic techniques. Ongoing projects include: (i) Characterization of an extracellular mediator of prolactin action, (ii) ontogeny and functional interconversion of growth hormone and prolactin-secreting cells, (iii) differential regulation of hormone release from cells that simultaneously release both of these hormones, (iv) molecular heterogeneity of secreted forms of hormone, and (v) endocrine-immune interactions. Salary is highly competitive and commensurate with experience. Background in cellular or molecular biology is desirable, but not an absolute requirement. Please send curriculum vitae and names of three references to:

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

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The successful candidate will have a BS/MS in Biochemistry or related field with a strong background in enzymology, receptor biology or immunology techniques. Candidate must also be familiar with biochemical testing methodology including but not necessarily limited to ligand-receptor interactions. Familiarization with computer-based data handling and database management as well as a working knowledge of microbiological techniques is desirable.

*In exchange for your talents, we offer a competitive salary and benefits package and outstanding career opportunities for personal and professional growth. For confidential consideration, please forward your resume with salary history/requirements to **Employee Relations, SRG55, Sterling Research Group, A Division of Sterling Drug Inc., 81 Columbia Turnpike, Rensselaer, NY 12144. Equal Opportunity Employer M/F/H/V.***



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VICE PRESIDENT FOR ACADEMIC AFFAIRS AND DEAN, SCHOOL OF MEDICINE

Medical College of Ohio

The Medical College of Ohio, a free-standing institution located in suburban Toledo, Ohio, invites nominations and applications for the combined position of Vice President for Academic Affairs and Dean of the School of Medicine.

As Vice President for Academic Affairs, the incumbent is a member of the College's administrative core, responsible to the President for education and research in the School of Medicine, Graduate School and the Schools of Nursing and Allied Health. These responsibilities include interactions with affiliated teaching hospitals and other organizations, planning for capital needs, and working interactively with other administrative offices to implement the missions of the College. The Vice President reviews all recommendations from the four schools for faculty actions, for budgets and for changes in policy before they are submitted to the President.

As Dean, the incumbent serves as the chief executive of the School of Medicine, and provides academic and administrative leadership for a faculty of 253 full-time, 40 part-time and 750 volunteer members. The School enrolls approximately 550 students in curricula leading to the M.D. or the joint M.D.-Ph.D. Degrees. The School's budget for the 1989-1990 academic year is approximately \$50 million. The budget does not include the budget for the Medical College of Ohio Hospital or compensation for full-time faculty that is derived from patient care. The Dean represents the School of Medicine to the Board of Trustees, President, and to external audiences in the public and private sectors. Other responsibilities include short- and long-range planning and the identification and attraction of financial resources for the School.

The Medical College of Ohio has outstanding modern educational, research and clinical facilities. We seek an energetic and highly interactive Vice President for Academic Affairs and Dean who will assist in promoting the future development of the College.

Applications with **curriculum vitae** and nominations may be submitted for confidential review by the Search Committee to:

**Chairman, Search Committee for Vice President for
Academic Affairs and Dean, School of Medicine
Office of the President
The Medical College of Ohio
P.O. Box 10008
Toledo, Ohio 43699-0008**

Review of applications and nominations will begin immediately and will continue until an appointment is made.

In employment, as in education, The Medical College of Ohio is committed to affirmative action and equal opportunity.

POSITIONS OPEN

CELLULAR NEUROPHYSIOLOGIST/ANIMAL PHYSIOLOGIST (SEARCH REOPENED). The Department of Biology at Bryn Mawr College has a tenure-track opening for a highly qualified young investigator having an active interest in both research and teaching. The successful applicant will be expected to establish a funded research program and to participate in the undergraduate and graduate teaching programs of the department and of an anticipated new interdepartmental program in neural and behavioral sciences. We seek a broadly trained cellular neurobiologist whose program will complement existing strengths in neuroscience, and who is able to teach both cellular neurophysiology and animal physiology. Applications, including curriculum vitae, statement of research and teaching interests, selected reprints, and the names of three references, should be sent to: **Dr. Paul Grobstein, Department of Biology, Bryn Mawr College, Bryn Mawr, PA 19010.** *Affirmative Action/Equal Opportunity Employer.*

CHAIRPERSON DEPARTMENT OF FOOD SCIENCE AND TECHNOLOGY

The Ohio State University seeks an outstanding individual to provide leadership for its teaching, research, and extension programs in food science, food technology, and nutrition. The chair will promote excellence in a newly created department with an authorized faculty of 21, including two named chairs with an endowment in excess of \$3 million, over 100 undergraduate and 50 graduate students. Current plans include a new facility in the 1992 budget. Applicants must have an earned doctorate in food science or a related field, be tenurable at the professor level, and have a broad range of experience in the food arena. Apply by sending a letter of application, curriculum vitae, and the names of at least three referees to: **Dr. Karla Roehrig, Chair, Search Committee, Department of Food Science and Technology, 2121 Fyffe Road, Columbus, OH 43210.** Applications will be accepted until 15 October 1989 or until a suitable candidate is found. *The Ohio State University is an Equal Opportunity/Affirmative Action Institution.*

CHEMICAL LIMNOLOGIST, GEOCHEMIST: Nine-month, permanent-track position to assume responsibility for the development of environmental/ecological research program at State University of New York at Oswego. Requires excellent analytical skills and field sampling experience. Successful candidate will be expected to attract extramural funding to expand existing programs in the areas of Great Lakes, solid and hazardous wastes, and water quality research. Send letter, curriculum vitae, three letters of recommendation, and transcripts by 15 October 1989 to: **Personnel Office, c/o Research Center Position, 410 Calkin Hall, SUNY, Oswego, Oswego, NY 13126.**

An Affirmative Action/Equal Opportunity Employer

National Institute of Child Health and Human Development, National Institutes of Health, Chemistry/Biology. A CHEMISTRY/BIOLOGY TECHNICAL POSITION is available immediately for a U.S. citizen or permanent resident to join ongoing research on **PROTEIN HORMONE RECEPTORS AND ACTIONS.** Applicants should have knowledge of molecular and cell biology, protein chemistry and an understanding of biological functions. A master's degree or equivalent experience is required. The starting salary is commensurate with experience. Applications with full curriculum vitae and three references should be addressed to: **Dr. Maria L. Dufau, National Institutes of Health, Building 10, Room 8C-407, 9000 Rockville Pike, Bethesda, MD 20892.** *NIH is an Equal Opportunity Employer.*

TEMPLE UNIVERSITY MEDICAL SCHOOL DEPARTMENT OF DIAGNOSTIC IMAGING TWO POSITIONS

We are seeking qualified individuals with 2 to 5 years of experience to provide technical support in our Nuclear Medicine Research Laboratory. Duties include administering radioactive compounds and computer analysis. Bachelor's degree in a scientific area or nuclear medicine is required. We offer an excellent salary/benefits package including 100% tuition remission. For immediate response, please submit résumé including salary requirements to: **Susan Christides, Temple University, 203 USB, 1601 North Broad Street, Philadelphia, PA 19122.** *Equal Opportunity Employer/Affirmative Action.*

POSITIONS OPEN

CHEMIST, ANALYTICAL (RESEARCH SCIENTIST V): Conducts research in analytical chemistry with application to environmental samples, sample collection, QA/QC, utilizing graphite furnace atomic absorption spectrometry. For graphite furnace atomic absorption spectrometry, performs fundamental studies of atomization processes and develops improved instrumentation. Develops methods for solution of environmental problems, including determination of metals at ultratrace levels in solid waste, soils, and sediments. Supervises and manages New York State Environmental Laboratory Approval Program, utilizing background and experience in analytical chemistry. Teaches graduate courses in analytical and environmental chemistry and assists in developing curriculum for same. Provides technical supervision to Ph.D.-level scientists and others in laboratory. Supervises 20 to 25 others. Must have 3 years of prior teaching experience on graduate student level and 3 years of experience in laboratory management and minimum of 16 career research papers. Ph.D. analytical chemistry and 3 years of experience in job or 3 years of experience as associate professor, professor, or senior lecturer of analytical chemistry required. Thirty-seven and a half hours per week; \$57,468 per year. Send résumé to: **Albany Job Service Office, Attention: Mr. Randy Dayton, 115 Ontario Street, Albany, NY 12206.** Refer to Job Order #0402957. DOT Code 022.061-010.

COGNITIVE NEUROPHYSIOLOGIST (POSITRON EMISSION TOMOGRAPHY): The University of California at Irvine is seeking a neurophysiologist to participate in collaborative studies of human cognition based at the West Los Angeles VA Medical Center Positron Emission Tomography (PET) Facility. Requirements include a Ph.D. in neurosciences or other relevant area, strong interest in human brain function, facility with computing, electromechanical devices, and data analysis. The appointment will be made at the postdoctoral or assistant researcher level. The research involves recording of local brain metabolic rate and scalp-evoked potentials in normal subjects and in patients during cognitive tasks with neurological and psychiatric diseases. Send curriculum vitae and three references to: **Professor Mark Mandelkern, Physics Department, UC Irvine, Irvine, CA 92717.** *An Affirmative Action/Equal Opportunity Employer.*

DEAN, College of Pharmacy, University of Utah. A distinguished educator/scientist is sought to provide educational, scientific and fiscal leadership for the college. The Dean is the chief administrator of the College, reporting directly to the Vice President for Health Sciences. The College of Pharmacy is research-intensive and committed to excellence in professional and graduate education. Applications will be accepted until 1 November 1989 or until a suitable candidate has been identified. Please send curriculum vitae and names, addresses, and telephone numbers of three or more referees to: **Arthur D. Broom, Ph.D., Chairman of the Search Committee, College of Pharmacy, University of Utah, Salt Lake City, UT 84112.** *The University of Utah is an Equal Opportunity/Affirmative Action Employer; applications from qualified female/minority candidates are encouraged.*

DIRECTOR OF TOXICOLOGY

Indiana University School of Medicine is seeking a Director for the Toxicology Division within the Department of Pharmacology and Toxicology. The Director will be responsible for developing and managing a strong research and academic program in toxicology. The Director will also manage the State Department of Toxicology within the Division and be responsible for substance abuse testing and the alcohol breath-testing programs. Applicants should hold a Ph.D. degree in pharmacology and/or toxicology, or an M.D. degree. Experience in forensic toxicology and a minimum of 5 years of experience in the area of toxicology are required. Applicants should also have a demonstrated ability to secure research funding, as well as an ability to provide strong leadership. Applications or nominations along with curriculum vitae and the names of three references should be sent to: **Dr. Michael R. Vasko, Chairman, Search and Screen Committee, Department of Pharmacology and Toxicology, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202-5120.**

Indiana University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

CONSERVATION BIOLOGY UNIVERSITY OF MARYLAND AT COLLEGE PARK DEPARTMENT OF ZOOLOGY

Applications are invited for a tenure-track position from individuals with strong records of basic research in ecology, evolution, or behavior, and with demonstrated experience in conservation biology. Rank is open. This individual will participate in the development of a new, interdisciplinary graduate program in conservation biology, maintain an active research program, and contribute to graduate and undergraduate teaching. Send curriculum vitae, pertinent reprints, a statement of research interests, and names of four referees to: **Dr. J. D. Allan, Department of Zoology, University of Maryland, College Park, MD 20742.** Closing date: 1 November 1989, or until a suitable candidate is found. *The University of Maryland is an Equal Opportunity/Affirmative Action Employer.*

ECOLOGICAL GENETICIST COLORADO STATE UNIVERSITY

The Department of Biology invites applications for a 9-month, tenure-track position in ecological genetics at the assistant professor level, available August 1990. Primary emphasis is on the genetic structure and dynamics of natural populations of plants or animals in the context of ecological/evolutionary questions. Applicants must possess a Ph.D. in a biological science and provide evidence of excellence in teaching and research; postdoctoral experience is desirable. We seek an individual who is thoroughly conversant with modern theory in population genetics, ecology, and evolutionary biology and who is actively involved in testing such theory, preferably using molecular techniques. The successful candidate will be expected to develop a vigorous, externally funded research program and to interact with the large community of ecologists at the university. Teaching responsibilities will include an advanced course in ecological/population genetics, introductory biology and/or evolution courses, and a graduate seminar. Applicants should submit curriculum vitae, selected reprints, and a letter summarizing background and describing research and teaching goals, and should arrange to have three letters of recommendation sent by 15 December 1989 to: **Dr. John A. Wiens, Ecological Genetics Search Committee, Department of Biology, Colorado State University, Fort Collins, CO 80523.** *Colorado State University is an Affirmative Action/Equal Opportunity Employer. EO Office: 314 Student Services Building.*

ENDOCRINOLOGIST: Department of Comparative Medicine tenure-track position available. Requirements include a solid publication record, evidence of independent research, interest in collaborative research, and ability to supervise a core laboratory. Research opportunities include monkey models of atherosclerosis and risk factors, reproductive function and behavior. Rank and salary commensurate with experience. Contact: **Jay Kaplan, Ph.D., Department of Comparative Medicine, Bowman Gray School of Medicine, Wake Forest University, 300 South Hawthorne Road, Winston-Salem, NC 27103.** Telephone: 919-764-3600. *An Equal Opportunity/Affirmative Action Employer.*

ENVIRONMENTAL CHEMISTRY

The College of Public Health at the University of South Florida is seeking applicants for a tenure-earning faculty position in the Department of Environmental and Occupational Health. Salary and rank are commensurate with experience. The candidate must have a doctoral degree in chemistry or related field, and educational or employment experience in public health. The successful candidate is expected to develop both teaching and research activities at the graduate level. Curriculum vitae, three letters of reference, and a brief statement of research interests should be sent to:

**Charles I. Noss, Sc.D.
Environmental Health Faculty Search Committee
College of Public Health, MHH-104
University of South Florida
13301 Bruce B. Downs Boulevard
Tampa, FL 33612**

Applications must be received no later than 15 November 1989. *The University of South Florida is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ECOLOGIST. The Department of Biological Sciences at California State University, Chico, invites applications for a tenure-track assistant professorship beginning 1990-1991 academic year. Candidate must have a Ph.D., specialization in an area of ecology, strong commitment to teaching at undergraduate and master's level, and demonstrated ability to develop a rigorous research program which will complement a strong departmental ecology group. Responsibilities include teaching courses in ecology and field biology and in the candidate's area of specialization. Applicants should submit a letter of application, curriculum vitae, complete academic transcripts, copies of reprints, and three letters of reference to: **Dr. William F. Derr, Chair, Department of Biological Sciences, California State University, Chico, CA 95929-0515** by 15 November 1989. An Equal Employment Opportunity/Affirmative Action IRCA 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.

FULL PROFESSOR— ENVIRONMENTAL ANALYSIS AND DESIGN

The Program in Social Ecology at the University of California, Irvine, is recruiting a senior professor in the area of Environmental Analysis and Design. Candidates must have achieved international recognition for outstanding scholarship in one or more of the following fields: urban and regional planning, facility planning and environmental design research. Salary and benefits competitive with the best research universities.

The Program in Social Ecology grants B.A., M.A., and Ph.D. degrees. The 35 full-time faculty have multidisciplinary interests and include urban planners, architects, environmental health specialists, psychologists, sociologists, demographers, criminologists, and lawyers. The Program offers a Ph.D. concentration in Environmental Analysis and Design and M.A. concentrations in Urban and Regional Planning and Facility Planning and Management. The selected candidate will be expected to provide leadership in the development of these areas of the Program. The Social Ecology Building houses a full-scale environmental simulation laboratory, as well as environmental health and group dynamics laboratories.

Submit letter of application, curriculum vitae, and names of three references to:

**Dr. Daniel Stokols, Director
Program in Social Ecology
University of California, Irvine, CA 92717**

Closing date for applications is 15 December 1989. The University of California is an Equal Opportunity/Affirmative Action Employer.

Science and Technology Policy Division Director

Syracuse or
Washington, D.C.
Office

Syracuse Research Corporation a multidisciplinary research and development organization with offices in Syracuse, NY; Atlanta, Cincinnati, and Washington, D.C., invites applications for Director of Science and Technology Policy Division in the Syracuse or Washington, D.C. office.

The director will be responsible for developing SRC's Policy Division into a leadership position in the field of interdisciplinary policy research, as well as exploring and developing new policy research funding resources.

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The Department of Lipid and Lipoprotein Metabolism, SANDOZ Research Institute, seeks a recent graduate (0-3 years) with a doctoral degree in the Life Sciences. This 2-year position will provide postdoctoral training in the characterization of rodents transgenic for key determinants of cholesterol transport and metabolism. The successful candidate will be an energetic scientist, with broad training in both biochemical and recombinant DNA techniques. Some knowledge of lipoprotein metabolism would also be useful. He or she will pursue collaborative research with physiologists and molecular biologists in an exciting and well supported multidisciplinary environment.

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Robert N. Saunders, Ph.D.
Director, Human Resources 403/1
Sandoz Research Institute
SANDOZ PHARMACEUTICALS CORP.
East Hanover, New Jersey 07936



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POSITIONS OPEN

ENDOWED OSCAR M. COHN '34 PROFESSOR OF BIOCHEMISTRY AND CHAIR, DEPARTMENT OF BIOCHEMISTRY DARTMOUTH MEDICAL SCHOOL

Applications and nominations are invited for an endowed professorship and chairperson of the Department of Biochemistry at Dartmouth Medical School. The department has responsibilities for the education of undergraduate, medical and graduate students. The current department consists of fourteen faculty members and is well funded from federal sources. We are seeking candidates who have an outstanding record of research achievement in any field of biochemistry or molecular biology and who are able to provide strong leadership to an already excellent department. Candidates should have a doctorate degree in a relevant discipline, experience in an academic center, and credentials for appointment as a professor. Interested individuals should forward curriculum vitae and the names and addresses of three references to: **Dr. Edward Bresnick, Chairman of the Biochemistry Search Committee, Department of Pharmacology and Toxicology, Dartmouth Medical School, Hanover, NH 03756.** Dartmouth Medical School is an Affirmative Action Employer and encourages the application of women and minorities.

FACULTY POSITION, MICROBIOLOGY UCLA

The Department of Microbiology, College of Letters and Science, University of California, Los Angeles, has a tenure-track position available for a molecular biologist. The primary areas of recruitment interest are (i) molecular genetics of yeast and (ii) molecular aspects of archaeobacteria. A Ph.D. or equivalent as well as several years of postdoctoral experience in microbiology, molecular biology, or a related field is required, with evidence of research accomplishments and teaching abilities. The individual selected will be expected to establish a strong research program as well as participate in undergraduate and graduate student teaching. Title and salary (nationally competitive) are commensurate with qualifications and experience with preference for an entry-level position. Applicants should send a letter of application, curriculum vitae, summary of research interest, relevant publications, and the names and addresses of three references to: **Dr. Virginia L. Miller, Department of Microbiology, UCLA, 405 Hilgard Avenue, Los Angeles, CA 90024.** Deadline for applications is 15 December 1989. UCLA is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

IVF EMBRYOLOGIST

The Division of Reproductive Endocrinology at Hurley Medical Center in Flint, Michigan, offers an opportunity in a new IVF program. A highly motivated individual with a minimum of B.S./M.S. in biology, zoology, or related area is required for a new IVF laboratory. Experience in tissue culture, embryology, IVF, andrology, and cryobiology is preferable. Affiliation with a well-established IVF laboratory will provide initial orientation and additional training if required. Competitive salary, dependent upon experience, and generous benefits to qualified candidates. Academic appointment and research opportunity available.

Please send curriculum vitae to:

Mostafa Abuzeid, M.D.
Director of Reproductive Endocrinology
Assistant Professor of Ob/Gyn
Michigan State University
College of Human Medicine
Two Hurley Plaza, Suite 205
Flint, MI 48503

MOLECULAR BIOLOGIST—Manufacturer of In Vitro Diagnostic Devices has an immediate opening in the area of Antisera screening research. Requirements include a B.A. or B.S. in molecular biology or a related field and a good working knowledge of immunology.

SALES AND MARKETING—Openings also exist in the areas of sales and marketing for individuals with similar backgrounds. Please send résumé, salary history, and a letter of application to:

Personnel Manager
Pel-Freez Clinical Systems
9099 North Deerbrook Terrace
Brown Deer, WI 53223
Telephone: 800-558-4511 or 414-357-4500

POSITIONS OPEN

FACULTY POSITIONS: Department of Neurobiology and Behavior—SUNY Stony Brook. The Department of Neurobiology and Behavior of SUNY Stony Brook is continuing its search for candidates for tenure-track, state-funded positions in cellular, developmental, molecular and integrative neurobiology, beginning as early as academic year 1989 to 1990. The department, which currently consists of 13 members, is undergoing significant redevelopment and has the resources to grow to 20 members within the next 5 years. Presently available positions are at the assistant professor level although an appointment at the rank of associate professor could be considered. Rank and competitive salaries will be commensurate with qualifications. All applicants should have a minimum of 2 years of postdoctoral experience. Candidates will be expected to develop a vigorous independent research program, and as such ample space and start-up funds will be provided. Applicants will also be expected to participate in undergraduate, graduate and/or medical school instruction. Applicants should submit curriculum vitae, statement of research interests, and names and addresses of three references to: **Dr. Lorne Mendell, Chairman, Department of Neurobiology and Behavior, SUNY Stony Brook, Stony Brook, NY 11794-5230.** SUNY Stony Brook is an Affirmative Action/Equal Opportunity Employer and Employer. AK 212.

FISHERIES/AQUATIC BIOLOGIST

Ebasco Environmental, the environmental consulting division of Ebasco Services, has the following position available in its Arlington, Virginia, office for a fisheries/aquatic biologist, 8 to 10 years of experience, with detailed knowledge of U.S. Fish and Wildlife Instream Flow Incremental Methodology (IFIM). Must be IFIM-certified; additional experience in stream temperature modeling desirable; hydrolicensing and relicensing, water resources, project development, and agency consultation experience preferred.

WETLAND ECOLOGIST

Ebasco Environmental's Northern New Jersey office is seeking a wetland ecologist with experience in field delineation of wetlands using multi-parameter methodology, or in design of freshwater wetland mitigation plans. Good oral and written communication skills essential, advanced degree preferred but not required.

Ebasco offers excellent growth opportunities as well as competitive salaries and a comprehensive benefits package. Please send résumé including salary history/requirements to: **T. A. Caparo, Ebasco Services Inc., 160 Chubb Avenue, Lyndhurst, NJ 07071.**

MICROBIOLOGIST/CELL BIOLOGIST: Applications are invited for an assistant or associate professor tenure-track position in the Biology Department of Whitman College starting August 1990, although a January 1990 start is possible. Ph.D. required. Duties include teaching cell biology, microbiology, one elective, and participation in student-faculty research. Whitman is a liberal arts college of 1200 students with a strong commitment to undergraduate teaching and research with excellent facilities in biology. Please send curriculum vitae, three letters of recommendation, transcripts, and statement of teaching and research interests to: **Dr. P. H. Yancey, Biology Department, Whitman College, Walla Walla, WA 99362. Telephone: 509-527-5498.** Affirmative Action/Equal Opportunity Employer.

Faculty positions in **MOLECULAR VIROLOGY AND YEAST MOLECULAR GENETICS.** Tenure-track ASSISTANT PROFESSOR positions in a growing department with research strengths in molecular immunology and pathogenesis. Potential for collaboration with other large research programs in inflammation, oncology, atherosclerosis, and molecular genetics. The successful candidates will be expected to establish an independent research program and participate in the teaching of graduate and medical students. Send curriculum vitae, description of research goals, and names of three references to: **Dr. Steven Mizel, Department of Microbiology and Immunology, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, NC 27103.** WFU is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

FACULTY POSITION IN PHARMACOLOGY

Applications are invited for a tenure-track position in the Department of Pharmacology, University of Houston. The academic rank will be commensurate with the qualifications of the candidate. Applicants are sought whose research programs emphasize biochemical/cellular approaches to cardiovascular and/or renal function. At the assistant professor level, candidates should have a minimum of 2 years of postdoctoral experience and provide evidence of the ability to develop an independent research program while candidates at either the associate or full professor level should have an active established research program. In addition to performing high quality, independent and collaborative research, other responsibilities include participation in teaching of professional and graduate students. Applicants should submit curriculum vitae, a statement of research objectives, and names of three reference sources to:

Dr. Mustafa F. Lokhandwala, Chairman
Department of Pharmacology
College of Pharmacy
University of Houston
Houston, TX 77204-5515
An Equal Opportunity Employer

FACULTY POSITION MOLECULAR VIROLOGIST

The Department of Microbiology and Immunology, University of Rochester, School of Medicine and Dentistry invites applications for a tenure-track appointment at the level of assistant professor in the area of viral pathogenesis at the molecular level. We are particularly interested in areas of viral oncology including retroviruses, hepadnaviruses, and herpes viruses. The Department has new laboratory space for virology and core facilities including oligonucleotide and peptide synthesizers and automated DNA and peptide sequencers. There will be opportunities to collaborate with other faculty whose interests are in human papillomaviruses, flaviviruses, HIV and the clinical aspects of cytomegaloviruses in the newborn. The Medical School has a comprehensive Cancer Center and center for drug and vaccine testing for HIV. Applicants should have a Ph.D. and at least 2 years of relevant postdoctoral experience. Send curriculum vitae, an outline of research interests and goals, and the names, addresses, and telephone numbers of three references to: **Dr. Dennis McCance, Chairman, Virology Search Committee, Department of Microbiology and Immunology, Box 672, University of Rochester, 601 Elmwood Avenue, Rochester, NY 14642.**

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

Ph.D. RESEARCH ASSOCIATE full-time faculty position available for experienced investigator in studies of the host response to injury and infection. Applicant should have experience in culture techniques (in situ hybridization), writing grant proposals and scientific publications, and should possess Ph.D. Duties will include active participation in research, supervision of personnel, coordination of ongoing projects, and writing grant proposals and publications. Salary commensurate with experience. Send curriculum vitae to: **Dr. Richard Gamelli, Department of Surgery, The University of Vermont, Given Building, Burlington, VT 05405.** An Equal Opportunity/Affirmative Action Employer. Women and minorities are especially encouraged to apply. Application deadline is 1 November 1989.

PHYSIOLOGY AND BIOPHYSICS

Two tenure-track positions are available at the Medical College of Ohio in cardiovascular and electrophysiology. Academic rank determined by experience. A doctoral degree and 2 years of postdoctoral research are a minimum. Applicants should send résumé, statement of research goals, and names, addresses, and telephone numbers of three references by 15 November 1989 to: **Dr. William E. Jacobus, Professor and Chairman, Department of Physiology and Biophysics, Medical College of Ohio, P.O. Box 10008, Toledo, OH 43699-0008.** MCO is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ORGANISMAL BIOLOGIST THE UNIVERSITY OF CHICAGO

The Department of Organismal Biology and Anatomy invites applications for a tenure-track position. The department has a broad interest in the mechanisms and evolution of organismal function, and wishes to appoint a new faculty member who has research interests that complement or build on the department's strengths in the areas of evolutionary morphology, animal physiology, biomechanics, and neuroethology. The successful candidate should pursue a vigorous, independent research program using either invertebrates or vertebrates in an area that has organismal consequences. Such areas include comparative physiology, endocrinology, reproductive biology, comparative immunology, neurobiology, as well as many others. Applicants should send curriculum vitae, statement of research interests, and names of references to: **Dr. Philip S. Ullinski, Department of Organismal Biology and Anatomy, 1025 East 57th Street, Chicago, IL 60637.** The University of Chicago is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL ASSOCIATE

A postdoctoral position is available to study translational control. The overall objective is to isolate and clone factors that regulate mRNA expression during the early development of *Xenopus laevis*. A recently published paper that is relevant to this work is *Genes Dev.* 3:803-815, 1989. Please send curriculum vitae and the names, addresses, and telephone numbers of three references to: **Dr. Joel Richter, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.**

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Affirmative Action Employer M/F/H

POSTDOCTORAL ASSOCIATE

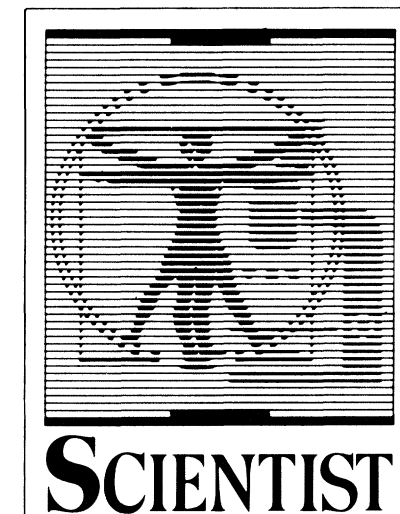
Postdoctoral position available immediately to identify cis- and trans-acting elements involved in cell-specific expression of optoid peptide genes. This is a fully funded position. Experience with recombinant DNA techniques is desirable but not required; however, a strong background in biochemistry is necessary. Send a complete biographical sketch, including research experience and bibliography, and the names, addresses and telephone numbers of three references to: **Dr. Daniel L. Kilpatrick, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.**

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POSTDOCTORAL FELLOW position for a qualified person to study fungal protein kinases—activation mechanisms and role in cell division and development. Experience in enzymology and/or lipid biochemistry preferred. Send curriculum vitae and names of three references to: **Dr. John D. Weete, Department of Botany and Microbiology, Auburn University, AL 36849.** Affirmative Action/Equal Opportunity Employer. Applications from minorities and women are encouraged.

Dr. Alan Tall
Department of Medicine
Columbia University
New York, NY 10032

POSTDOCTORAL POSITION available immediately in Arteriosclerosis SCOR program to investigate lipoprotein metabolism and atherosclerosis, using biochemical and molecular biological approaches. U.S. citizen or permanent resident. Send curriculum vitae to:



At the forefront of biomedical research, Program Resources, Inc. (PRI) is paving the way for new programs and discoveries at the National Cancer Institute's Frederick Cancer Research Facility.

We are seeking a Virologist/Molecular Biologist with 1-2 years experience to join our AIDS In-Vitro Drug Screening

Laboratory. This individual will assist in the supervision of our primary anti-viral screen and participate in investigating mechanisms of anti-viral drug interactions with HIV and development of new anti-viral drug screens.

You'll work in a campus-like setting in Frederick, MD near Baltimore and Washington, D.C. Plus, PRI will reward your expertise with a salary commensurate with credentials and an attractive fringe benefits program, including insurances, relocation allowance, and a 401(k) savings plan. For consideration, please forward CV in confidence to M. Elizabeth Fox, Technical Recruiter.

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Frederick, MD 21701



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VICE PRESIDENT/CHAIRMAN, MEDICAL SCIENCES DIVISION SEARCH REOPENED

Nominations and applications are invited for the position of Vice President/Chairman of the Medical Sciences Division of Oak Ridge Associated Universities. ORAU is a private, not-for-profit consortium of 49 colleges and universities and a management and operating contractor of the U.S. Department of Energy. Its mission is to carry out research and development in medical sciences, science/engineering education, productivity management and training, and energy/environment systems.

The Chairman provides scientific and managerial leadership to strengthen, build and conduct Division programs that address critical medical and health issues associated with energy. The Chairman's responsibilities include providing broad scientific and managerial leadership, developing a strong staff, allocating resources, and representing the Division to federal agencies, universities, and other organizations.

The Division's interdisciplinary staff of about 125 investigates the medical benefits and costs to the human body from natural and synthetic substances, primarily those from energy and energy-related technologies. It carries out basic preclinical research; develops beneficial applications to human health from science and technology; develops techniques to avoid moderate, or reverse negative health impacts; analyzes the health risks and outcomes from applications of technologies; and provides information systems and management expertise to deal with health-related impacts.

Qualifications for the position include a doctorate in medicine and/or health science; an established record of excellence in research and/or research leadership; the ability to build a strong organization and staff, and to work effectively within and outside ORAU. Excellent writing and presentation skills and leadership qualities reflected in vision, innovation, and organization are required.

Applications should include a letter of interest, a vita, a list of publications, and the names and addresses of at least three references. The Search Committee will continue its review until the position is filled. The appointee will assume the full responsibilities of Vice President/Chairman in early 1990. A transition period preceding the retirement of the incumbent is planned.

Applications, nominations, and inquiries should be sent to:

Jon M. Veigel, President
Oak Ridge Associated
Universities
P.O. Box 117
Oak Ridge, TN 37831-0117

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POSITIONS OPEN

POSTDOCTORAL POSITION within a multidisciplinary research group to investigate the regulation, purification, and characterization of enzymes of the chlorophyll biosynthetic pathway. Address curriculum vitae and three letters of recommendations to: **Professor C. A. Rebeiz, Laboratory of Plant Pigment Biochemistry and Photobiology, University of Illinois, 202 ABL, 1302 West Pennsylvania, Urbana, IL 61801.**

POSTDOCTORAL POSITION available immediately in a cellular immunology laboratory to study mechanisms of self-tolerance and autoimmunity in transgenic mice. Experience in immunology and tissue culture is desirable. Level of support is determined by NIH guidelines. Send curriculum vitae and names of three references to:

Dr. Judith A. Kapp
Department of Pathology
Jewish Hospital of St. Louis, CSB-7
216 South Kingshighway
St. Louis, MO 63110
*Jewish Hospital is an Affirmative Action/
Equal Opportunity Employer.*

POSTDOCTORAL POSITION

To use nonlinear dynamics (fractals, chaos) to study cell membrane ion channels. Patch clamp experiments, new methods of analyzing single channel data, and model simulation of channel kinetics and dynamics. [Ref: Liebovitch *et al.*, *Math. Biosci.* **84**, 37 (1987); *Biophys. J.* **52**, 979 (1987)]. Knowledge of mathematical numerical methods and computers essential; electrophysiology and electronics helpful. Available 1 January 1990. Send résumé and names of three references to: **Dr. Larry S. Liebovitch, Eye Research, Columbia University, 630 West 168th Street, New York, NY 10032.**

POSTDOCTORAL POSITION is available to study gene control by translational attenuation in *Bacillus subtilis*. The regulatory mechanism modulates expression of chloramphenicol-inducible *cat* genes in gram-positive bacteria, and is activated by drug-mediated ribosome stalling in *cat* leader mRNA [see *PNAS* **85**, 3057 (1988)]. Preference will be given to individuals experienced in in vitro translation, RNA, and protein characterization. Salary is competitive and commensurate with experience. Please send curriculum vitae and names of three potential references to:

Dr. Paul S. Lovett
Department of Biological Sciences
University of Maryland
5401 Wilkens Avenue
Baltimore, MD 21228

UMBC is an Equal Opportunity Employer.

POSTDOCTORAL POSITION/MOLECULAR BIOLOGY available in well-funded laboratory for the molecular cloning of complement proteins and study of their genes. Experience in recombinant DNA technology is desirable. Salary will be commensurate with experience. Candidates should send curriculum vitae to: **Dr. Carl-Wilhelm Vogel, Department of Biochemistry, Georgetown University School of Medicine, 3900 Reservoir Road N.W., Washington, DC 20007.** *Georgetown University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS IN MOLECULAR BIOLOGY OF VIRAL PATHOGENESIS

Research is designed to (i) elucidate the structural determinants of virus host range, virulence, and immunity, and (ii) determine protein interactions in virus assembly and gene expression of both human and animal paramyxoviruses. Candidates receive training in state-of-the-art molecular and immuno-biological concepts and techniques in a multi-disciplinary research environment. Candidates should forward their curriculum vitae and three letters of reference to:

Dr. Allen Portner
Department of Virology & Molecular Biology
St. Jude Children's Research Hospital
332 North Lauderdale
Memphis, TN 38105

Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION (ASSISTANT RESEARCH SCIENTIST) available Spring 1990 in Laboratory of **Dr. Claudio Basilio**, Department of Pathology. Areas of research presently investigated include: (i) the regulation of expression of the K-FGF/HST oncogene, and the characterization of the growth factor it encodes; (ii) the interaction of K-FGF and related growth factors with their receptor(s); and (iii) cloning and characterization of genes regulating cell cycle progression in animal cells. Background in molecular biology, genetics, or cell biology desirable. Salary open. Send curriculum vitae and names of references to: **Joan Harmon, Personnel Department, New York University Medical Center, 550 First Avenue, New York, NY 10016.** *An Equal Opportunity Employer M/F.*

POSTDOCTORAL POSITION IN VASCULAR CELL BIOLOGY available immediately to study phenotypic modulation of smooth muscle cells in coronary vessels following cardiac transplant. Research project is funded by a 5-year NIH grant and will involve studies on cultured myogenic cells and animal models of proliferative vascular disease. Experience in protein biochemistry, molecular biology, and/or immunocytochemistry preferred. Please send curriculum vitae, brief statement of research experience and interests, and three letters of recommendation to: **Dr. Arthur R. Strauch, Department of Anatomy and the Molecular, Cellular, and Developmental Biology Program, College of Medicine, The Ohio State University, 333 West 10th Avenue, Columbus, OH 43210-1239.**

POSTDOCTORAL POSITION available immediately to investigate cellular and molecular mechanisms of regulation of G protein-coupled receptors and transmembrane signalling pathways in cultured mammalian cells. Recent Ph.D. in biochemistry, pharmacology, cell biology, or related area. Contact: **Myron L. Toews, Ph.D., Department of Pharmacology, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, NE 68105-1065.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately in the Department of Biochemistry and Biophysics, University of California, San Francisco, for molecular genetics work on the structure, function, and biosynthesis of bacterial enzymes with covalently bound flavin and quinone (e.g., PQQ) cofactors. Experience with recombinant DNA techniques is essential, and protein biochemistry experience would be helpful. Send curriculum vitae and references to: **Dr. William S. McIntire, Department of Veterans Affairs Medical Center, Molecular Biology Division (151-S), 4150 Clement Street, San Francisco, CA 94121.**

POSTDOCTORAL POSITION available for a recent graduate interested in studying the transcriptional control of gene expression in the developing nervous system. Approaches include gene transfer and isolation/molecular cloning of transacting factors. Send curriculum vitae (including visa/citizenship status), a summary of interests, and names of references to: **James A. Waschek, Ph.D., University of California, Los Angeles, Neurobiochemistry Research Group, 760 Westwood Plaza, Room 68-225 NPI, Los Angeles, CA 90024-1759.**

POSTDOCTORAL POSITION IN DROSOPHILA NEUROBIOLOGY

Position available immediately to study neuropeptide biosynthesis. Experience in biochemistry and molecular biology required. Salary commensurate with experience (\$28,852 to \$34,580). Send résumé and three letters of recommendation to: **Drs. Thomas J. Kelly/Edward P. Masler, Insect Reproduction Laboratory, USDA-ARS, BARC-East, Building 306, Room 323, Beltsville, MD 20705.** Applications must be marked 1B4360. *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately to study the physiology and biochemistry of growth hormone and prolactin. Background in biochemistry/molecular biology/immunology with experience in protein purification preferred. Salary \$20,000 per year. Please send curriculum vitae and three letters of recommendation to: **Dr. Y. N. Sinha, Department of Biochemistry, Whittier Institute for Diabetes and Endocrinology, Scripps Memorial Hospital, 9894 Genesee Avenue, La Jolla, CA 92037.**

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study the cellular properties/neuropharmacology of mammalian brainstem neurons involved in the control of breathing. A strong background in neurobiology (either vertebrate or invertebrate) is required. Training opportunities include the use of brainstem slices, current and voltage clamp techniques, patch clamp of dissociated neurons, and dye injection to study cellular morphology. The laboratory is well equipped and funded, with strong interactions between members of a university-wide interdisciplinary respiratory control group. Competitive stipend. Send curriculum vitae along with the names, addresses, and telephone numbers of three references to: **Dr. Michael S. Dekin, School of Biological Sciences, University of Kentucky, Lexington, KY 40506-0225.** *The University of Kentucky is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION

Postdoctoral position available immediately to study structure-function relationships of plasma membrane ecto-ATPases. (See *J. Biol. Chem.* **264**, 14403-14407 and 14408-14414.) Experimental approaches include both molecular biology and protein chemistry. Candidates must have Ph.D. and experience in recombinant DNA technology and protein purification. Send curriculum vitae and three letters of recommendation to: **Sue Hwa Lin, Ph.D., Department of Molecular Pathology, Box 89, University of Texas M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.**

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH SERVICE

TWO-YEAR POSTDOCTORAL POSITION available immediately with immunology/entomology research project to develop immunologically based methods to detect insect contamination of grain and food products. Knowledge of immunological and biochemical analyses required. Skill in entomology and an interest in application of developed techniques is desirable. Minimum starting salary: \$28,852. Send résumé, transcript, and addresses of three references to: **Dr. Wendell Burkholder, Stored Product Insects Research Unit, Department of Entomology, 1630 Linden Drive, University of Wisconsin, Madison, WI 53706.** Telephone: 608-262-3795. *ARS is an Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS available immediately to study translational regulation in eukaryotic viruses and growth factors. Recent Ph.D. with experience in recombinant DNA technology is preferred. Salary commensurate with qualifications. Send curriculum vitae and three letters of reference to:

Kailash C. Gupta, Ph.D.
Department of Immunology/Microbiology
Rush Medical College
1653 West Congress Parkway
Chicago, IL 60612

Rush is an Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF CALIFORNIA LOS ANGELES

POSTDOCTORAL RESEARCH ASSOCIATES. Positions now available to study molecular mechanisms of the genetic and environmental regulation of gene expression in the mammalian retina. Projects involve the light-dependent movement of proteins in visual cells and the non-coordinate expression of visual genes during the light/dark cycle. Experience in molecular biology, biochemistry or immunocytochemistry preferred. Send résumé, and names of three references to: **Dr. James F. McGinnis, University of California, Los Angeles, 760 Westwood Plaza, Los Angeles, CA 90024.** Telephone: 213-825-0579.

POSTDOCTORAL RESEARCH POSITION. Research focuses on the regulation of gene expression of enzymes involved in steroid hormone biosynthesis. Experience with recombinant DNA methodology required. Send curriculum vitae and the names of three references to: **Dr. A. H. Payne, Steroid Research Unit, L1221 Women's Hospital, University of Michigan, Ann Arbor, MI 48109-0278.**

MASS SPECTROMETRIST NATIONAL INSTITUTES OF HEALTH

The Laboratory of Bioorganic Chemistry, National Institute of Diabetes and Digestive and Kidney Diseases, seeks outstanding candidate with Ph.D. and at least 5 years postdoctoral training and experience to be a mass spectrometry specialist for the laboratory's investigations into natural products. Applicant should have research interest in this field as well as experience in the analysis of drugs from biological sources. Preference will be given to candidates with expertise in a variety of mass spectrometry ionization and introduction techniques, experience in the development of hardware and software, and modification and improvement of existing equipment. Applicants should have a substantial record of publications and demonstrated ability in the deployment of original research efforts. Starting salary \$48,592 or may be negotiable commensurate with qualifications and experience. Interested candidates should submit curriculum vitae, several reprints, summary of planned research efforts and names of three references to:

John Daly, Ph.D.
Building 8, Room 1A-15
National Institutes of Health
9000 Rockville Pike
Bethesda, Maryland 20892

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SENIOR SCIENTISTS

Cardiovascular Research

As a leader in the field of pharmaceutical and medical research, Hoffmann-La Roche offers scientists state-of-the-art resources, exciting projects, and the opportunity to make things happen. We are seeking two PhD-level scientists to make significant contributions to our cardiovascular research:

IN VIVO MODELS

Primary responsibility will be to evaluate the interaction between neutrophils and vascular endothelium in myocardial infarction using animal models. This will include having broad interaction with an interdisciplinary group of Roche scientists. Involvement in other projects in the department will be encouraged. A PhD in Physiology, Pharmacology or a related discipline, along with experience with *in vivo* models is required; industrial and/or postdoctoral research background is preferred. **Please refer to Position LB on resume.**

BIOCHEMICAL MECHANISMS SIGNAL TRANSDUCTION SYSTEMS

You will head up a project team comprised of up to four professionals engaged in mechanisms of ischemic myocardial injury. You must have a PhD in Biochemistry, along with at least five years' postdoctoral experience in biochemical mechanisms of signal transduction systems, with experience in cardiovascular science. The ability to take immediate charge of a project is required; industrial background is preferred. **Please refer to Position AH on resume.**

We offer competitive salaries, a generous benefits package, a convenient suburban location 10 miles west of New York City and all of the advantages inherent in working with a dynamic team of scientists. For confidential consideration, please send your resume, indicating the code for position of interest and present salary (those without this information will not be acknowledged), to: **Mrs. Eleanor M. Malone, Hoffmann-La Roche Inc., Nutley, New Jersey 07110.** We are an equal opportunity employer



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DIRECTOR OF THE PROTEIN STRUCTURE LABORATORY UNIVERSITY OF CALIFORNIA, DAVIS

The Department of Biological Chemistry invites applications from qualified individuals for the position of Director of the Protein Structure Laboratory. The Protein Structure Laboratory is a nationally recognized instrumentation facility serving the needs of the entire Davis campus of biologists and biochemists, spanning all Schools and Colleges. The Laboratory houses modern equipment supporting research programs in wide areas of biochemistry, biotechnology, and molecular biology. Major instruments of the Laboratory include gas and liquid phase protein sequencers, amino acid analyzers, a peptide synthesizer, an oligonucleotide synthesizer and associated high performance liquid chromatographs. The Director is responsible for the supervision of all Laboratory personnel and for quality control of the services provided by the Laboratory. The Director will have the opportunity to develop and pursue his/her own research program, since the Directorship carries with it an academic appointment within the Department. A modest teaching responsibility is associated with the position. Applicants should possess a Ph.D., or equivalent experience, in biochemistry, chemistry, or an allied field, and have had extensive experience in the operation and management of instruments of the type now present in the Laboratory. Interested applicants should submit a curriculum vitae, a description of research interests and instrumentation and management experience, and provide the names and addresses of 3 references, to be sent to: William F. Benisek, Chair, Search Committee for Protein Structure Laboratory, Department of Biological Chemistry, School of Medicine, University of California, Davis, CA 95616. The position is open until filled. Applications will be accepted through 12/31/89, or until a suitable candidate is identified.

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

ZYMOGENETICS

CELL BIOLOGIST

ZymoGenetics, Inc., is a Seattle based genetic engineering company engaged in developing human therapeutics. We currently seek a Cell Biologist to supervise and coordinate a cell biology service unit.

The qualified candidate will have a BS or a MS in biological sciences, or the equivalent and an extensive background in tissue culture/cell biology. Additionally, applicants must have demonstrated organizational & supervisory skills. The responsibilities of this position include:

- Supervision of the tissue facility.
- Developing new technologies relevant to the expression of heterologous genes in mammalian cells.
- Developing novel bioassays.

ZymoGenetics offers a stimulating scientific environment, modern and well-equipped facilities and an attractive compensation and benefit package. For consideration, please submit C.V., names and addresses of three references and a short description of recent research activities to:

ZYMOGENETICS, INC.
Human Resources Coordinator
4225 Roosevelt Way NE
Seattle, WA 98105

ZymoGenetics, Inc., is an equal opportunity employer.

ZymoGenetics, Inc. is a subsidiary of Novo-Nordisk A/S, one of the world's leading biotechnology companies and a major force in insulin manufacture and diabetes treatment. Headquartered in Denmark, Novo-Nordisk employs more than 7,500 people in 30 countries and markets its products in 120 countries.

POSITIONS OPEN

POSTDOCTORAL POSITIONS for 12 to 24 months in any of the following projects: (i) regulation of mammalian ribonucleotide reductase at the gene and protein level, including the integration of ribonucleotide reduction, DNA synthesis, and cellular proliferation; (ii) biochemical and biophysical studies of the iron/radical center in mammalian ribonucleotide reductase; (iii) conformation and dynamics of (a) biologically active peptides or (b) oligonucleotides and their interactions with antitumor drugs or chemical carcinogens studied by NMR and optical spectroscopy. Candidates should include curriculum vitae and names and addresses of two references with their applications, which should be sent to: **Department of Medical Biochemistry and Biophysics, University of Umeå, S-901 87 Umeå, Sweden.** For further information, contact: **Lars Thelander (i and ii); telephone: +46/90-166742, or Astrid Gräslund (ii and iii); telephone: +46/90-166565.**

UNIVERSITY OF LEICESTER DEPARTMENT OF BOTANY POSTDOCTORAL RESEARCH ASSISTANT AND TECHNICIAN IN PLANT MOLECULAR BIOLOGY

Applications are invited for the above posts to join an established team investigating gene expression and protein secretion at wound sites in monocots and dicots. The project will involve part of the following themes:

(i) Characterization of the promoter region of a recently isolated wound site-specific gene from asparagus in transgenic plants of several species. (ii) Clone genes coding for proteins secreted from mechanically isolated cells of several species after wounding. (iii) Design constructs to allow the expression and secretion of anti-bacterial proteins in transgenic plants.

Suitable applicants should have experience in recombinant DNA technology and/or molecular biology. The appointments are tenable for 3 years starting on 1 October 1989 (or soon thereafter) and are on the Research Associate IA scale (£10,458 to £16,665) and the Technician Grade A scale (£6,040 to £6,939), according to qualifications and experience.

Informal enquiries and formal applications, including curriculum vitae and names of two referees as soon as possible to: **Dr. John Draper or Dr. Garry Whitlam, Botany Department, University of Leicester, Leicester, LE1 7RH, U.K. Telephone: (0533) 523392.**

POSTDOCTORAL RESEARCH ASSOCIATE (NIH-supported) position is available immediately to study neuroendocrine control of reproduction. Research projects will include both molecular neurobiology and cellular aspects of neuro-peptide secretion. Individuals with experience in molecular biology, in situ hybridization and receptor functions are encouraged to apply. Send curriculum vitae and the names of three references to: **Dr. P. S. Kalra, Department of Obstetrics and Gynecology, University of Florida College of Medicine, P.O. Box J-294 JHMHC, Gainesville, FL 32610. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH POSITION available this November to study effects of alcohol on hypothalamic neurons using immunocytochemical and in situ hybridization techniques. Previous experience with these techniques and a working knowledge of computers and neuroanatomy is highly desirable. Please send curriculum vitae and three letters of recommendation to: **Dr. Gerald P. Kozlowski, Department of Physiology, The University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-9040. Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE—POSITION

Multiyear position available October 1989 in a group using cell and molecular biologic approaches to characterize gene expression during carcinogenic transformation of mammary epithelium. Experience in recombinant DNA techniques essential. Send curriculum vitae and names of three references to: **Craig W. Beattie, Ph.D., Cancer Center, c/o University of Illinois College of Medicine at Chicago, 840 South Wood Street, m/c 820, Chicago, IL 60612.**

University of Illinois/Michael Reese Hospital are Equal Opportunity/Affirmative Action Employers.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE position with NIEHS Marine/Freshwater Biomedical Center to study chemical carcinogenesis in trout and other fish. Projects include histopathology, histochemistry, and ultrastructure of neoplasia in fish. Closing date: 15 October 1989. Send résumé, transcripts and three letters of recommendation to: **Dr. Jerry Hendricks, Marine/Freshwater Biomedical Center, Wiegand Hall, Oregon State University, Corvallis, OR 97339. OSU is an Affirmative Action/Equal Opportunity Employer and complies with section 504 of the Rehabilitation Act of 1973.**

POSTDOCTORAL RESEARCH ASSOCIATES

Five positions available this fall for a multidisciplinary approach to study peptides and proteins for biological and clinical applications. Candidates should have experience in one of the following areas: (i) peptide synthesis, (ii) immunology, (iii) cell biology, (iv) HIV, (v) blood coagulation, and (vi) growth factors. Send curriculum vitae and names or letters of two references to: **Dr. James P. Tam, Rockefeller University, 1230 York Avenue, New York, NY 10021. An Equal Opportunity Employer.**

PROCESS ENGINEER—B.S. in chemical environmental engineering with 2 years of experience as a process engineer or M.S. with 0 years of experience. Knowledge of physical and mathematical models to stimulate full-scale performance of activated carbon unit processes, and familiarity with the use of microcomputers and common software packages, such as Lotus and Word Perfect required. Perform feasibility studies on unit processes in water treatment to evaluate and obtain design criteria for the processes. Evaluate activated carbon applications in water treatment plants, specifically for the removal of pollutants regulated under the Safe Drinking Water Act. Design activated carbon processes in water treatment plants. Publish and present papers in journals and conferences. Forty hours per week; \$2540 per month. Job location: Gainesville, Florida. Qualified applicant send résumé with copy of ad to: **Job Service of Florida, 1307 North Monroe Street, Tallahassee, FL 32302. J.O.# FL-0156996.**

PROTEIN CHEMIST/MOLECULAR BIOLOGIST—Biotechnology Branch is seeking a qualified scientist to join a multidisciplinary research team. The position can be filled at the master's, Ph.D., or postdoctoral level with a salary range from \$23,846 (GS-9/1) to \$38,039 (GS12/4), depending on background and experience. The successful candidate will have a strong background in protein purification and characterization, peptide synthesis and sequencing, and DNA cloning/sequencing. Candidates with a background in NMR and x-ray crystallography would be particularly well suited. For consideration, please send curriculum vitae and references to: **Dr. David L. Kaplan, U.S. Army Natick Research, Development, and Engineering Center, STRNC-YMT, Natick, MA 01760-5020. U.S. citizenship required. Equal Opportunity Employer.**

RENAL PHYSIOLOGIST DARTMOUTH MEDICAL SCHOOL

Applications are invited for a faculty position as assistant or associate professor in the Department of Physiology at Dartmouth Medical School. Applicants should have a doctoral degree, postdoctoral experience, and interest and research accomplishment in some aspect of renal physiology in the broadest sense. Send curriculum vitae, a statement of research interests, teaching experience, and names, addresses, and telephone numbers of three references by 1 November 1989 to: **Donald Bartlett, Jr., M.D., Chairman, Department of Physiology, Dartmouth Medical School, Hanover, NH 03756.**

An Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE position available for studies in developmental neuroendocrinology. Ph.D. in physiology, pharmacology, molecular biology or related discipline required. Experience in cell culture and radioimmunoassay preferred; additional techniques welcome. Competitive salary. Please send résumé and names of references to: **Research Associate Position, c/o Dr. W. Dahms, Rainbow Babies and Childrens Hospital, Room 790, Case Western Reserve University, 2101 Adelbert Road, Cleveland, OH 44106.**

POSITIONS OPEN

QUALITY ASSURANCE DIRECTOR—Ph.D. in radiation chemistry plus 3 to 5 years as quality assurance director or in research in radiation technology. In-depth knowledge of state-of-the-art radiation research and applications, proficiency with radiation dosimetry, and familiarity with free radical chemical reactions required. Perform radiation dosimetry, including the design and development of new dosimeters. Control high-energy radiation sources and high-energy electron accelerators, including x-rays Co⁶⁰ and Ce¹³⁷ Van de Graaf accelerators, and linear accelerators. Manage and handle radioactive and isotopic dilution techniques. Carry out a variety of research in radiation-induced chemical reactions. \$50,000 per year. Qualified applicant send detailed résumé and copy of advertisement to: **Department of Economic and Employment Development, 1100 North Eutaw Street, Room 212, Baltimore, MD 21201. JO# 7078460. Job location: Rockville, Maryland. Proof of legal right to work in U.S. required.**

RESEARCH AGRICULTURAL CHEMIST

Applications invited for the position of Research Agricultural Chemist with the California Department of Food and Agriculture, Sacramento, California. Successful applicants will be expected to direct and conduct a vigorous, original, and independent research program. Applicants sought who have achieved international recognition in their field with emphasis on analytical chemistry; leadership skills in a research and development program with emphasis on analytical chemistry of pesticides; and an ability to manage all functions associated with directing such a program including budgeting, personnel management, interaction with public and private entities, and knowledge of state and federal regulatory processes. Starting annual salary commensurate with responsibilities, plus substantial benefits. Submit applications, including curriculum vitae, by 17 November 1989 to: **Carol Anderson, California Department of Food and Agriculture, Personnel Management Services, Room 126, 1220 North Street, Sacramento, CA 94271-0001. The State of California is an Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE/ POSTDOCTORAL FELLOW CYCLIC AMP-RESPONSIVE TRANSCRIPTIONAL TRANSACTIVATOR PROTEINS, CREBs

A position is open for a dedicated investigator with experience in molecular/cellular biology to work on the regulation of a family of DNA-binding proteins responsive to activation by cAMP- and/or DAG-dependent signal transduction pathways in animal endocrine cells. Interest is in the mechanisms by which phosphorylations modulate the DNA-binding and transactivating functions of these multiple CREB- and Jun-related proteins and the developmental expressions of subsets of the proteins in the placenta, pituitary and endocrine pancreas. Progressive salary and rank commensurate with experience. Comprehensive benefits. Please send résumé and two letters of recommendation to: **Joel F. Habener, M.D., Director, Laboratory of Molecular Endocrinology, Howard Hughes Medical Institute, Massachusetts General Hospital, Boston, MA 02114. Fax: 617-726-8142.**

RESEARCH IMMUNOPATHOLOGIST

Full-time position as associate research immunologist in Division of Gerontology and Geriatric Medicine, University of California, San Francisco, to develop an independent research program on autoimmunity in aging by (i) identifying and characterizing cell-surface antigenic changes in vivo and in vitro and specific autoimmune humoral markers in aging individuals, and (ii) assessing the role of viral agents, local MHC expression, and endocrine changes in the development of autoimmunity. Requires M.D. or Ph.D. with training in human immunopathology, tissue culture, and MHC biology; at least 5 years of research experience in the characterization of human tissue-specific antigens involved in epithelial and endocrine autoimmunity by immunohistochemical and serological methods; and a strong publication record. Salary range \$44,400 to \$49,500. Send curriculum vitae by 23 October 1989 to: **Claude D. Arnaud, M.D., Chief, Division of Gerontology, P.O. Box 7921, San Francisco, CA 94120. Equal Opportunity/Affirmative Action Employer.**



Yale UNIVERSITY

Evolutionary Biology

The Department of Biology is engaged in building an interdisciplinary program in the evolutionary sciences and organismal biology and invites applications for positions at the senior and junior levels. While outstanding scientists working in any area of evolution will be considered, areas of particular interest to our faculty include molecular approaches to population biology or phylogeny, developmental approaches to evolution, evolution of genome organization, and quantitative approaches to evolutionary problems. With building renovations now well underway, we are prepared to make several appointments as soon as possible.

We seek individuals with a strong interdisciplinary inclination, who might profit from interaction with the Department's strong programs in molecular, cell, developmental, and organismal biology, and the Peabody Museum of Natural History.

Send curriculum vitae, description of research interests and names and addresses of at least three references by January 1, 1990 to:

Evolutionary Biology Search Committee, c/o The Chairman, Department of Biology, Yale University, PO Box 6666, New Haven, CT 06511

*Yale University is an Affirmative Action/
Equal Opportunity Employer*

Biotechnology Research

California Biotechnology Inc., a leading biotechnology company engaged in developing human therapeutics and protein drug delivery systems, currently has openings for the following professionals:

Protein Biochemist

Join a team conducting research in the area of human neurological disease. This position requires experience in protein purification and characterization of novel enzymatic activities. Knowledge of proteases and inhibitors is a plus. The qualified candidate will have a PhD with 1-2 years' experience. Previous research experience in neurobiology is not required.

Cell Biologist

Join a group conducting research on novel growth factors and chemotactic agents involved in tissue repair. Candidate will be responsible for characterizing cellular responses and receptor interactions of these factors/agents. This position requires a PhD with 2-5 years' experience along with knowledge of cell culture and cell culture-based activity assays. Additional experience with biochemical characterization of proteins is a plus.

Cal Bio offers a stimulating work environment and a competitive compensation and benefits program. Please send your resume to California Biotechnology Inc., Human Resources, Dept. LM-S922, 2450 Bayshore Parkway, Mountain View, CA 94043. EOE/AA.

CAL  BIO

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Biochemistry Research

The Biotechnology Department of Allied-Signal Research and Technology is seeking a PhD Chemist or Biochemist with 0-4 years of research experience. The ideal candidate will be familiar with protein chemistry, including purification, characterization, and modification of antibodies, enzymes or other proteins. Knowledge of synthetic organic chemistry is also required. Previous experience in synthesis, purification, or scale-up of oligopeptide products would be desirable.

The successful candidate will plan and conduct experiments in the general areas of biosensors, biomaterials and bioprocessing. You will also be expected to propose and pursue new research projects, and will serve as an informational resource in protein chemistry and related areas.

Allied-Signal is a world-wide high-technology company with core businesses in Aerospace, Automotive and Engineered Materials. We offer an excellent salary and comprehensive benefits. For immediate consideration, send your resume with salary history/requirements to: Human Resources, Dept. G, Allied-Signal Inc., P.O. Box 1021R, Morristown, NJ 07962. An equal opportunity employer.



POSITIONS OPEN

RESEARCH ASSOCIATE: The Hematology/Oncology Section of the Department of Medicine has an immediate opening in cytokine research. The applicant must have a Ph.D. or M.S. degree with experience in the study of the effects of cytokines on hematopoiesis. Apply with curriculum vitae and three references to: **Dr. Ronald Hoffman, Chief, Hematology/Oncology, Indiana University School of Medicine, Clinical 379, 541 Clinical Drive, Indianapolis, IN 46202-5111.** An Equal Opportunity/Affirmative Action Employer.

RESEARCH MANAGERS

Promega Corporation, a high-growth biotechnology company in Madison, Wisconsin, involved in the development of nucleic acid and antibody-based diagnostic products for the clinical, food, paternity testing, and forensic markets, is recruiting two experienced Senior Scientists.

All applicants should have a Ph.D. plus a minimum of 7 years of postdoctoral experience and have demonstrated excellence in independent research, communication, and the ability to contribute to strategic planning and technology assessment. Qualifications for the Immunochemistry Research Manager position include extensive experience in the formatting and use of immunoassays and monoclonal antibody development. Qualifications for the Molecular Biology/Enzymology Research Manager position include extensive background in enzymology and protein purification as well as experience in molecular biology. The successful candidates will assume leadership roles in guiding teams of scientists developing novel approaches to problems in these areas.

Promega offers a competitive salary, comprehensive benefits, and a challenging, high-growth environment in which to apply your professional skills. All information will be kept in strict confidence. To apply, forward curriculum vitae and references to:

**Promega Corporation
Human Resources/DSG
2800 Woods Hollow Road
Madison, WI 53711-5399**

Promega Corporation is an Equal Opportunity Employer.

POSITIONS OPEN

RESEARCH ASSOCIATE. NIH-funded position with the Committee on Clinical Pharmacology, Department of Pharmacological and Physiological Sciences, The University of Chicago, Chicago, Illinois, with possible academic rank. The candidate must have an M.D. and/or Ph.D. degree in pharmacology/physiology. The successful individual will participate in ongoing laboratory studies on the structure and function of dopamine and other catecholamine receptors in the cardiovascular and renal systems. The qualified candidate will be responsible for planning and carrying out hemodynamic, cardiovascular, and renal function experiments in the laboratory, and for analyzing and preparing data for presentation at research meetings and for submission to scientific journals. The closing date for application is 15 November 1989. Send application with curriculum vitae, statement of research interests and abilities, and names and addresses of three references to: **Dr. Michael Murphy, Committee on Clinical Pharmacology, The University of Chicago, 947 East 58th Street, Chicago, IL 60637.** *The University of Chicago is an Equal Opportunity/Affirmative Action Employer.*

U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Western Regional Research Center, Albany, California. **RESEARCH TOXICOLOGIST/PHARMACOLOGIST** GS-12 (\$34,580 to \$39,192). A permanent full-time position is available immediately with the USDA, ARS, Albany, California to participate in studies on structure-biological activity relationships of potato and tomato alkaloids, biosynthetic intermediates, and other naturally occurring food toxicants. Previous research experience in embryotoxicity and teratogenicity and related disciplines is desirable. For information on the research program, contact: **Dr. M. Friedman, 415-559-5615/5642, Western Regional Research Center, USDA, ARS, 800 Buchanan Street, Albany, CA 94710.** For application procedures/forms, contact: **Rita Millard, 301-344-3138.** *U.S. citizenship required.*

An Equal Opportunity Employer.

POSITIONS OPEN

RESEARCH ASSOCIATE will carry out physiological and molecular biological studies of protein breakdown in mammalian tissues, to clarify mechanisms of growth and atrophy of skeletal muscle. Research includes protein purification, enzymology, organ physiology, studies of gene expression, and use of recombinant DNA techniques. Duties include training of other researchers. Candidates must have Ph.D. or equivalent in biology/biochemistry with at least 4 years of postdoctoral experience in similar research. Starting salary is \$26,000 per year. Send résumés to: **Massachusetts Department of Employment and Training, Special Program Department, 19 Staniford Street, Boston, MA 02114.** Refer to Case No. 91160.

SENIOR POSITION. The Department of Psychology is recruiting for a faculty position at the rank of associate or full professor to begin in the fall of 1990. The applicant must have a distinguished research record, demonstrated ability to obtain funding, and an interest in teaching. Our preference is for an individual in the area of cognition, learning, neuroscience, perception, or some combination of the above. *Dartmouth College is an Equal Opportunity Employer with an Affirmative Action Plan. Women and members of minority groups are encouraged to apply.* Send a letter of application and curriculum vitae, and have at least three letters of recommendation sent by 15 December 1989 to: **Chair, Senior Search Committee, Department of Psychology, Dartmouth College, Hanover, NH 03755.**

SENIOR RESEARCH ASSOCIATE PERMANENT POSITION ACADEMIC APPOINTMENT POSSIBLE

Experienced (Immuno)histochemist, at University Medical School Research Laboratory. Considerable bench work, Doctorate. Original work on cell membrane aspects of human carcinoma, ultraviolet and transmission electron microscopy experience necessary. Outstanding salary and excellent benefits. Send curriculum vitae, details on expertise, and bibliography to: **Box 150, SCIENCE.**

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SENIOR NEUROBIOLOGIST/NEUROSCIENTIST

National Institute of Mental Health Intramural Research Program

The NIMH is accepting applications for a senior neurobiologist/neuroscientist with interests in studying basic brain mechanisms of behavior. Applicants must hold a doctoral degree or equivalent and be interested in joining an established research program involving behavioral neurophysiology, neuroanatomy, neuropsychology, developmental neurobiology, neuroethology and other disciplines. The laboratory facilities are located in a rural setting approximately 30 miles west of the main NIH Bethesda campus near the town of Poolesville, Maryland. Researchers in the fields of neurophysiology, neuroanatomy, experimental psychology (including physiological psychology), developmental neurobiology, and related fields in the brain and behavioral sciences are especially encouraged to apply. Excellent facilities exist for primate research. The successful candidate should have broad experience and established credentials in the neurosciences. Duties will include scientific leadership and administration of a laboratory, as well as conduct of an internationally-recognized research program. Salary will be commensurate with other NIMH researchers having similar responsibilities, approximately \$57,158 to \$75,500 plus full Federal benefits. Send C.V., bibliography, a statement of future research directions, and the names of three references to:

**Steven M. Paul, M.D.
Acting Director, Intramural Research Program
National Institute of Mental Health
Building 10, Room 4N-224
9000 Rockville Pike
Bethesda, Maryland 20892**



NIMH IS AN EQUAL OPPORTUNITY EMPLOYER

Research Scientists

Bionetics Research conducts research for the Pharma Division of Akzo, N.V., a fully integrated multinational pharmaceutical and diagnostics company. Our focus is on basic research and product development in the areas of cancer and retroviruses. We are seeking four Research Scientists/Section Heads as explained below.

PHARMACOKINETICS

Duties will entail the design of pre-clinical and clinical pharmacokinetic studies for human monoclonal antibody, radionuclide and drug conjugates, analyzing data and writing reports and summaries for regulatory submission. A Ph.D. in pharmaceutical science with 2 years' experience in pharmacokinetics and related computer programs are required.

MOLECULAR VIROLOGY

Responsible for conducting research in retroviruses and related pathogenic elements aimed at understanding mechanisms of viral infection and pathogens, and regulation of viral gene expression. The development of vaccines and therapy for retrovirus infections are the ultimate goals of this work. A Ph.D. in molecular biology or virology and proven expertise in recombinant DNA techniques and expression of retroviral genes in bacterial and eucaryotic systems are required.

MOLECULAR BIOLOGY

Responsibilities include cloning various antibody molecules including IgG and IgMs. The clones will be used to reshape existing antibodies and to form new chimeric molecules. A Ph.D. in molecular biology, cell biology or molecular immunology and three years' post doctoral experience required. Preference will be given to molecular immunologists or individuals who have immunology training.

BIOCHEMISTRY

Responsible for development of methods to couple therapeutic ligands to human and murine monoclonal antibodies. Requirements include a Ph.D. in biochemistry or chemistry and 1-3 years' experience in conjugation methodologies.

Bionetics Research offers competitive salaries and benefits including relocation assistance and a generous company-matched, pretax savings plan.

For consideration, please send your curriculum vitae with cover letter addressing compensation requirements and names and telephone numbers of references.

**Bionetics Research
Science-922
1330-A Piccard Drive
Rockville, MD 20850**

Principals only. Bionetics is an equal opportunity employer. All applicants are welcome.



Neuropharmacologist

The Procter & Gamble Company has an immediate entry level opening for a Ph.D. neuropharmacologist with research experience in electrophysiology. The position, located at the Miami Valley Laboratories in Cincinnati, Ohio, is in an exploratory research program aimed at investigating the effects of new drugs on the peripheral nervous system. The applicant should have a Ph.D. in neuroscience, pharmacology, or physiology with 0-2 years post-doctoral research experience. Requirements include an understanding of *in vivo* and *in vitro* pharmacological and electrophysiological techniques.

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

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

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

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Procter & Gamble

C MRC Group in Protein Structure and Function M

University of Alberta, Edmonton Faculty Position in X-Ray Crystallography

The Medical Research Council of Canada Group in Protein Structure and Function at the University of Alberta invites applications for a Faculty position immediately available in the Department of Biochemistry. Applicants should have a strong background in protein/macromolecular crystallography and will be expected to develop a research project that will complement and contribute to the overall research efforts in the group. Appointments can be made at any level from Assistant to Full Professor depending upon the qualifications.

The MRC Group in Protein Structure and Function was established in 1974 and has undergone two successful renewals. In addition to X-ray crystallography, the major techniques of physical biochemistry are included in the armament used by the group members for the study of protein systems: hydrodynamic and spectroscopic methods, 2D nuclear magnetic resonance spectroscopy, protein micro-sequencing techniques, solid phase synthesis of peptides, recombinant DNA and protein engineering. The X-ray crystallographic laboratories are supported by excellent facilities, two single crystal diffractometers, two rotating anode generators, an SDMD system area detector with two detectors, two molecular graphics systems. The computing facilities at the University of Alberta are excellent. The University mainframe is an Amdahl 5870 operating under MTS. Access to supercomputing facilities is also possible at the Universities of Toronto (Cray) and Calgary (Cyber 205). In accordance with Canada Immigration regulations, priority will be given to Canadian citizens and permanent residents. The deadline for the position is November 30, 1989. Applicants should forward curriculum vitae, list of publications and names of three referees as soon as possible to either:

Professor C.M. Kay
Co-Director, MRC Group
in Protein Structure and Function
Department of Biochemistry
University of Alberta
Edmonton, Alberta, Canada T6G 2H7

or
Professor M.N.G. James
Department of Biochemistry
University of Alberta
Edmonton, Alberta, Canada
T6G 2H7

The University of Alberta is committed to the principle of equity in employment.

POSITIONS OPEN

RETROVIROLOGIST, FACULTY POSITION.

Applications are invited for a tenure-track assistant/associate professorship in molecular virology in a department with research interests in molecular pathogenesis, virology, and immunology. Applicants with interest and expertise in the molecular characterization of retroviral systems are especially encouraged to apply. Successful applicants are expected to establish an independent research program. Teaching responsibilities include participation in courses for medical and graduate students. Candidates should submit curriculum vitae, statement of research interests (include a description of postdoctoral studies), and a list of three references to: **Retrovirology Search Committee, Department of Microbiology, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226. An Equal Opportunity Employer.**

SCIENTIST/CLINICIAN DARTMOUTH MEDICAL SCHOOL

The Department of Medicine invites applications for two junior faculty positions with a start date in the summer or fall of 1990. The department intends to expand its laboratory-based faculty over the next several years in anticipation of the construction of the new Dartmouth-Hitchcock Medical Center scheduled to be completed in 1992. Applicants should have an M.D. or M.D./Ph.D., an active research program in the general areas of cellular, molecular and/or structural biology, and expertise in one of the subspecialties of internal medicine. The primary criteria for appointment will be the quality and promise of the research program, although excellence in clinical medicine and teaching are also important. Applications and materials must be received by 1 December 1989. Please submit curriculum vitae, list of publications, summary of research accomplishments, a concise future research plan, and the names of three or four references to: **Dr. Kendall A. Smith, Search Committee Chairman, Department of Medicine, Dartmouth Medical School, Hanover, NH 03756. Dartmouth Medical School is an Equal Opportunity/Affirmative Action Employer.**

SENIOR RESEARCH ASSOCIATE PERMANENT POSITION ACADEMIC APPOINTMENT POSSIBLE

Experienced Biochemist/Cell Biologist at University Medical School Cancer Research Laboratory. Benchwork-oriented individual with meticulous working habits for in-depth investigations of role of human carcinoma membrane glycoconjugates in primary tumor establishment. Technical help available. Especially outstanding salary and benefits in view of the importance of the academic task. Send curriculum vitae, details of benchwork expertise, and bibliography to:

**G. F. Springer, M.D.,
Chicago Medical School/V.A. Medical Center
3333 Green Bay Road
North Chicago, IL 60064**

Equal Opportunity Employer M/F.

WETLANDS TECHNICAL DIRECTOR

NSI Technology Services is currently recruiting a Technical Director for the Wetlands Ecosystem Component of the Environmental Monitoring and Assessment Program (EMAP) to develop and direct research on methods, trends, and "health" of U.S. wetlands. NSI is under contract with the USEPA at the Corvallis Environmental Research Laboratory.

Candidates must have a minimum of 5 years of research experience in wetland ecosystems; 2 years of experience in directing research efforts; a Ph.D. in wetland science or related discipline; and a strong peer-reviewed publication record demonstrating a national reputation for knowledge of major wetland ecosystem issues.

Application review and interviewing will begin immediately upon receipt of qualified applicants. Submit a cover letter which specifically relates your experience to this position, salary requirements, résumé, and the names of three professional references to: **Susan Carey, NSI Technology Services, Corporation, 1600 SW Western Boulevard, Corvallis, OR 97333. A subsidiary of ManTech International Corporation and an Equal Opportunity Employer.**

NSI Technology Services Corporation.

POSITIONS OPEN

SENIOR RESEARCH ASSOCIATE for northeast Ohio University to research into cartilage biochemistry and immunology directed to pathogenesis of osteoarthritis using animal models; purification of proteoglycans and collagens for use in production and assay of monoclonal antibodies; immunological characterization of serum proteoglycans in osteoarthritis using immunoaffinity chromatography, gel electrophoresis, Western blotting, and enzyme-linked immunoassays; supervise operation of hybridoma core laboratory and three research assistants. No experience required in above duties but applicants will qualify with Ph.D. in biochemistry or immunology and 3 years of experience in protein biochemistry and immunochemistry with emphasis on hybridoma technique; 37½ hours per week, 8:30 a.m. to 5:00 p.m., \$30,000 per year. Qualified applicants to submit curriculum vitae, list of publications, and three letters of recommendation (no calls) to: **G. Maugans, JO# 1084445, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

NASA SPACE LIFE SCIENCES TRAINING PROGRAM GRADUATE STUDENT LEVEL TEMPORARY POSITIONS

Applications are being accepted for temporary **STAFF POSITIONS** (January through August 1990) at the Kennedy Space Center supporting development and implementation of life science laboratory projects to be included in an intensive summer educational program for undergraduates. These staff positions offer on-the-job exposure to NASA's life science operations and research under the supervision of resident and visiting scientists. Graduate student level persons with background in general biology, human physiology (vestibular, cardiovascular, muscle, or exercise), plant physiology, embryology, microbiology, bioengineering, or combinations of the above are especially encouraged to apply. For more information contact: **Dr. Ronald L. Biro at 407-867-2521.** Applicants should send a letter of interest, curriculum vitae, and three letters of reference by 1 November 1989 to:

**John R. Puleo
The Bionetics Corporation
Mail Code BIO-1
Kennedy Space Center, FL 32899
*An Equal Opportunity Employer***

Beth Israel Hospital—Harvard Medical School solicits applications for a **STAFF RESEARCH POSITION** in the Department of Pathology in the field of developmental biology and cell differentiation. Candidates should be well-trained cell and molecular biologists with an M.D. or Ph.D. degree. They should have broad experience in cell culture and molecular biology, ideally including the application of these approaches to the analysis of the role of tyrosine kinases in cell-cell interactions. Evidence of substantial research productivity is required. The individual selected will need to obtain independent research funding. Harvard Medical School appointment at the level of instructor or assistant professor. Please send curriculum vitae and the names of three references to: **Dr. Stephen J. Galli, Department of Pathology, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215. We are an Equal Opportunity Employer.**

COURSE

MOLECULAR ENDOCRINOLOGY AND TECHNIQUES FOR HORMONE ACTION 19 to 23 February 1990

This **COURSE** will consist of lectures in methodology with comprehensive syllabus covering receptors, gene transcription, mRNA and protein synthesis, recombinant DNA, protein hormones, and cyclic nucleotides.

Co-directors: **M. R. Hughes and B. W. O'Malley**
Fee: \$365 (\$245: fellows and students)
For further information contact:

**Bonnie Cuthbert
Department of Cell Biology
Baylor College of Medicine
Telephone: 713-798-6200
Deadline: 2 February 1990**

POSITIONS OPEN

TENURED FACULTY POSITION— ASSOCIATE PROFESSOR OF UROLOGY

The University of Minnesota Department of Urologic Surgery is recruiting an academic urologist at the associate professor level with tenure. Job duties will include teaching residents in endourology, ureteroscopy, and pulsed laser techniques while performing these clinical functions in a patient care facility. Appointment at the associate professor level requires professional distinction in research and writing and demonstrated effectiveness in teaching and advising.

The successful candidate should be board certified in urology and have post-residency experience in academic practice. This experience should have included a designated year of fellowship devoted to endourology, and with demonstrated effectiveness in ureteroscopy and pulsed laser techniques. The candidate should have demonstrated extensive teaching of medical students and residents. Also, the candidate should have evidence of publications in peer-reviewed journals.

Send three letters of reference and curriculum vitae before 20 October 1989 to: **E. Fraley, M.D., Professor and Chair, Department of Urologic Surgery, Box 394 UMHC, 420 Delaware Street, S.E., Minneapolis, MN 55455.**

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

URBAN PLANNER to prepare short- and long-term economic and employment projections for DuPage county, demonstrating how these projections relate to growth and development of the county and its future needs and implications for housing, transportation, new occupations, land use, and economic development; conduct labor market and occupational research for planning of employment and training programs; compile and analyze statistical data; research and develop fiscal impact model designed to measure financial implications of new developments on taxes, revenues, and expenditures of local governments using LOTUS 1-2-3, SPSS/PC+, PC-Write, DWILL, and IBM 3270 series mainframe computer; make presentations to community groups. Master's Degree in Urban Studies/Urban Planning required plus 1 year of experience in job offered or 1 year as assistant urban planner or architectural assistant and/or assistant architect. College coursework must have included the following: town planning, building economics, and sociology; landscape and ecology. Experience must have included use of LOTUS 1-2-3, SPSS/PC+, PC-Write, and IBM 3270 series mainframe computer. Forty hours Monday to Friday, 9:00 a.m. to 5:00 p.m., \$24,687 per annum. Send résumé to: **Illinois Department of Employment Security, 401 South State Street, 3 South, Chicago, IL 60605. Ref. #9473D. An employer paid ad.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP (Microbiology) in the Sid W. Richardson Ocular Microbiology Laboratory, for American citizen with M.D. or Ph.D. in microbiology or infectious diseases, to study molecular biology of bacterial and fungal infections of the eye. Please send curriculum vitae and names of three references to: **K. Wilhelmus, M.D., Cullen Eye Institute, Baylor College of Medicine, 6501 Fannin, Houston, TX 77030.**

VISUAL SCIENCE RESEARCH FELLOWSHIPS. Postdoctoral fellowships are available on a competitive basis in the Departments of Immunology/Microbiology, Anatomy/Cell Biology or Ophthalmology at Wayne State University School of Medicine. General research areas include: anatomy, biochemistry, cell and molecular biology, clinical vision research, immunology, microbiology, neurobiology, virology, and visual psychophysics. This multidisciplinary program is supported by an NIH training grant, and requires U.S. citizenship or permanent residency status. Applicants having completed an ophthalmology residency program may qualify for additional supplementation and are encouraged to apply. Program information can be obtained by writing: **Dr. Paul C. Montgomery, Department of Immunology and Microbiology, Wayne State University School of Medicine, 540 East Canfield, Detroit, MI 48201.**

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CELL, MOLECULAR AND NEURAL BIOLOGISTS

The Department of Cell and Structural Biology at the University of Illinois, Urbana-Champaign, is continuing the expansion of its faculty. Several new tenure-track faculty will be recruited over the next few years at the Assistant and Associate Professor levels. Two positions are available for the 1990-1991 academic year, with a starting date of August 21, 1990. Applicants should hold the Ph.D. degree or equivalent, and show exceptional promise in research in the areas of developmental, neural, or cell biology. Responsibilities will include participation in teaching in these areas. Salary and rank will be commensurate with rank and experience. Substantial start-up funds and laboratory facilities are available to initiate new faculty research programs, for which the UIUC offers exceptional and broad-based supporting resources. These resources include a Transgenic Animal Facility; the Center for Electron Microscopy, with state-of-the-art instrumentation; the Genetic Engineering Facility, providing oligonucleotide and peptide synthesis and automated protein sequencing; the Cell Science Laboratory, which contains hybridoma and flow cytometry facilities; a molecular graphics facility; subsidized shops and animal care facilities; and a superb university library system, the third largest in the nation. The UIUC is a National Center for Supercomputing Applications, and is home to the Beckman Institute for Advanced Science and Technology, which combines research in the physical and biological sciences. Many other units within the Schools of Life Sciences and Chemical Sciences, and the Colleges of Medicine and Engineering offer opportunities for interactions in the cellular and molecular sciences. Urbana-Champaign combines the residential advantages of a medium-sized city (population 120,000) with outstanding cultural amenities within the University, and its location in east-central Illinois gives easy access to the cities of Chicago and St. Louis.

Applicants are requested to send a curriculum vita, a summary of research interests, and three letters of reference to:

Byron Kemper, Search Committee Chairman
Department of Cell and Structural Biology
University of Illinois
506 Morrill Hall
505 South Goodwin Avenue
Urbana, Illinois 61801
Telephone: (217) 333-6118

In order to ensure full consideration, applications should be received by December 15, 1989. Interviews may be conducted before December 15, 1989, but all applications received by that date will receive full consideration and the final selection will not be made until after that date. The University of Illinois is an affirmative action, Equal Opportunity Employer.

DEPARTMENT HEAD PATHOLOGY THE UNIVERSITY OF ARIZONA HEALTH SCIENCES CENTER

The University of Arizona College of Medicine is seeking a nationally renowned, highly qualified academic pathologist to head the Department of Pathology in Tucson, Arizona.

The College of Medicine has a twenty-two year history of rapid growth in every aspect of its mission—teaching, research, patient care, and community service. The recently appointed dean, James E. Dalen, M.D., is committed to excellence. Significant opportunities exist for the new Head to participate in this process; and particularly to strengthen the department's basic and clinical research programs to complement existing strengths in teaching and clinical service. Women and minorities are encouraged to apply for the Headship position. Additional faculty positions for recruitment will be made available in support of this research initiative.

Applications and nominations should be directed to:

Pathology Head Search Committee Chair
The University of Arizona Health Sciences Center
College of Medicine
Administration - Searches and Reviews - Room 2206
Tucson, Arizona 85724

The review of applications will begin on October 16, 1989, and will continue until the position is filled.

Applications should include a curriculum vitae with complete address and telephone number, along with the names, addresses, and telephone numbers of at least three references.

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



FACULTY POSITIONS

Division of Biological Sciences - University of Missouri-Columbia

Plant Developmental Biology/Genetics and Plant Ecology/Evolution

The Division of Biological Sciences, University of Missouri-Columbia, is pleased to invite applications for 2 tenure-track faculty appointments at the Assistant or Associate Professor level, available in September 1990. The Division has established strong programs in Plant Sciences, Cell and Molecular Biology and Evolutionary Biology, has a well funded faculty, and participates in a USDA National Needs Grant in Plant Molecular Biology.

Plant Developmental Biology/Genetics

Candidates will be expected to develop a vigorous research program in an area of Plant Developmental Biology/Genetics. Desirable areas of research include, but are not limited to: developmental programming, cell-lineage patterns, clonal analysis, cell or tissue determination, or other basic problems in development utilizing plant genetic systems. Teaching will include participation in a graduate level course in the candidate's area of specialization and involvement in an undergraduate course.

Plant Ecology/Evolution

Candidates will be expected to develop a vigorous independent research program in an area of Plant Ecology/Evolution. Desirable areas of research include but are not limited to studies of plant populations, communities, and evolution. Research programs may focus on any of a variety of plants from the algae and fungi to vascular plants. Participation in teaching at the graduate and undergraduate level is expected.

These positions are offered at highly competitive salary with excellent research start-up funds, laboratory space, and research support facilities.

Candidates should have a PhD, postdoctoral research experience, and a demonstrated record of research accomplishment. Applicants for an Associate Professor position should have an outstanding record of peer reviewed grants, research publication and participation in teaching. A curriculum vitae, statement of research and teaching interests, and the names, addresses and phone numbers of three references should be submitted by December 1, 1989 to: Dr. John David, Director, Division of Biological Sciences, University of Missouri, Columbia, Missouri 65211 (314-882-6650).

The University of Missouri is an Equal Opportunity Employer and encourages applications from women and minorities.

SYMPOSIUM



**VIIIth INTERNATIONAL CONGRESS
OF VIROLOGY**
Berlin, 26 to 31 August 1990
in affiliation with the
**IUMS-Symposium on Development
in Diagnosis and Control of Infectious Diseases**
24 to 26 August 1990

An Interdivisional Meeting of the International Union of Microbiological Societies (IUMS) including the Sessions of the International Committees, Commissions and Federations of the IUMS, Sessions of the WHO, and Different Satellite Symposia.

Topics of the International Congress of Virology, 26 to 31 August 1990: Molecular Biology; Virus-Cell Interactions; Pathogenesis and Immunity; Diagnosis and Control. All fields of virology will be covered by the Congress, including viruses of animals, plants, and prokaryotes, major problems on clinical virology, and AIDS.

Topics of the IUMS-Symposium, 24 to 26 August 1990: New developments in diagnosis of infectious diseases; Prospects for control of infectious diseases in developing countries; Impact of biotechnology on vaccine development.

Congress Secretariat

K.-O. Habermehl, Chairman
H. Zeichhardt, Congress Secretary
Institute for Clinical and Experimental Virology
Free University of Berlin
Hindenburgdamm 27 D-1000 Berlin 45
Telephone: 030-798 36 95, Fax: 030-834 30 61

Important dates:

September 1989: Preliminary program available.
15 February 1990: Deadline for submission of abstracts.

FELLOWSHIPS

UCLA-INTERCAMPUS MEDICAL GENETICS TRAINING PROGRAM

The UCLA Inter-campus postdoctoral research training program in Medical Genetics utilizes the research and clinical resources of its affiliated campuses and teaching hospitals. This program is open to academically oriented applicants with the M.D., Ph.D., D.D.S. or equivalent degrees. A wide variety of research training opportunities in molecular, biochemical, immuno-, cancer, cyto-, somatic cell, population and clinical genetics are available. The program also meets all the requirements of the American Board of Medical Genetics. Clinical genetics fellowships are available at each of the affiliated hospitals. Application forms are available from: **David Rimoin, M.D., Ph.D., Department of Pediatrics, Cedars-Sinai Medical Center, 8700 Beverly Boulevard, Los Angeles, CA 90048.**

POSTDOCTORAL FELLOWSHIPS THE GOLDA MEIR FELLOWSHIP FUND THE HEBREW UNIVERSITY OF JERUSALEM JERUSALEM, ISRAEL

The Hebrew University of Jerusalem invites applicants for Postdoctoral Fellowships in Humanities, Social Sciences, Natural and Applied Sciences, Agriculture, and Medicine for the 1990 to 1991 academic year.

Candidates may apply at an early stage of their professional career (not later than 3 years after completion of their doctoral dissertation).

The fellowships are tenable for one academic year and may be extended for another year. The fellowship provides a 12-month stipend (with COL adjustments), rent allowance, and a return ticket to Israel.

Application forms can be obtained from: **The Office of University Funds, P.O. Box 1255, Jerusalem, 91904, Israel.**

Completed application forms must be returned by 1 December 1989.

FELLOWSHIPS

University of California, Los Angeles—**FELLOWSHIP IN CARDIOVASCULAR PATHOLOGY.** The Department of Pathology of UCLA School of Medicine is offering a Fellowship in Cardiovascular pathology for 1 to 2 years. Training is available in aspects of basic science cardiac research. Areas of research emphasis include heart muscle disease, cardiac toxicity of drugs, heart transplantation, cryobiology, AIDS, and atherosclerosis. Diagnostic responsibilities include involvement with autopsy service and interpretation of endomyocardial biopsies. Teaching of students and residents is encouraged. Applicants should be board-eligible or certified in AP or AP/CP and eligible for medical licensure in California. Send letter of inquiry with curriculum vitae and names of three referees to: **William Lewis, M.D., Chief—Autopsy Section, Department of Pathology, UCLA Center for the Health Sciences, Los Angeles, CA 90024-1732.** UCLA is an Equal Opportunity Employer.

PREDOCTORAL FELLOWSHIPS PHARMACOLOGY AND MOLECULAR SCIENCES AND ANTI-CANCER DRUG DEVELOPMENT THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

Graduate study leading to the Ph.D. degree is offered in (i) protein and carbohydrate structure/function, (ii) molecular biology and gene regulation, (iii) molecular parasitology and virology, (iv) biomedical mass spectroscopy, (v) neuropharmacology, and (vi) design, synthesis, and testing of new drugs.

The programs foster innovative, interdisciplinary research and provide competitive stipends for qualified individuals. Fellowships are available to U.S. citizens and permanent residents only. Interested minority students are strongly encouraged to apply. Qualified candidates should contact: **Dr. Mette Strand, Director of Graduate Training, Department of Pharmacology and Molecular Sciences, The Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205. Telephone: 301-955-7117.**

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POSTDOCTORAL FELLOWSHIP

Behavioral molecular neurobiology: A position is available immediately to study the effects of stress and drugs on the expression of brain genes (c-fos, neurotransmitter receptors, and others) as these relate to behavioral processes. Our laboratory has unequalled training and research capabilities in molecular biology and behavioral sciences. Salary range: \$20,000 to \$28,000 for 2 to 3 years. Applicants must have Ph.D. Experience in molecular biological techniques preferred. Send curriculum vitae, any publications, and three letters of reference to: **Dr. Eric A. Stone, Department of Psychiatry, New York University Medical Center, 550 First Avenue, New York, NY 10016.**

FELLOWSHIPS IN REPRODUCTIVE BIOLOGY NORTHWESTERN UNIVERSITY

Postdoctoral and predoctoral fellowships are available in reproductive biology for outstanding students. A diverse but cohesive program offers research in biochemical, molecular, cellular, physiological, and behavioral aspects of reproduction. Participating faculty include: **Erwin Goldberg** (Immunology and reproductive biochemistry); **Mary Hunzicker-Dunn** (Ovarian protein kinase; adenyl cyclase); **Jon Levine** (Neuroendocrinology); **Daniel Linzer** (Molecular endocrinology of prolactin); **Kelly Mayo** (Gene regulation in the mammalian neuroendocrine system); **Neena Schwartz** (Gonadotropin endocrinology); **Joseph Takahashi** (Circadian rhythms and photoperiodism); and **Fred Turek** (Circadian rhythms and photoperiodism). Send curriculum vitae and names of three references to: **Dr. Daniel Linzer, Department of Biochemistry, Molecular Biology and Cell Biology, Northwestern University, 2153 Sheridan Road, Evanston, IL 60208.**

Applicants must be eligible for the NIH Training Program (U.S. citizen or permanent resident). Northwestern University is an Equal Opportunity/Affirmative Action Educator and Employer.

FELLOWSHIPS

1989 MARKEY FELLOWSHIP PROGRAM:

Applications are invited from investigators in the biological and biomedical sciences for summer research fellowships at the Mount Desert Island Biological Laboratory, an internationally renowned institute for comparative physiology and marine biology. Using vertebrate and invertebrate fauna from the Gulf of Maine, Laboratory researchers pursue diverse interests including the comparative physiology of the kidney, cell membrane transport, mechanisms of cell division, cellular and molecular aspects of environmental toxicology. Preference is given to applicants who are several years beyond the completion of the doctorate who demonstrate evidence of an independent research program but are still in relatively early phases of their research careers. The fellowships, sponsored by the Lucille P. Markey Trust, include laboratory space, housing, supplies, and other allowances depending on individual needs. Applications and instructions for the preparation of brief proposals may be obtained by contacting: **Dr. Donald A. McCrimmon, Mount Desert Island Biological Laboratory, Department S, P.O. Box 35, Salsbury Cove, ME 04672. Telephone: 207-288-3605.** Deadline for completed applications is 8 January 1990.

SUMMER RESEARCH FELLOWSHIPS FOR UNDERGRADUATE FACULTY AND STUDENTS

The Mount Desert Island Biological Laboratory (MDIBL), with support from The Pew Charitable Trusts, has established a new program for undergraduate education to enhance scientific training in the biological sciences. Fellowships will provide research support for the summer of 1990 in two categories:

1) Faculty fellowship awards for teacher scientists with primary responsibilities at the undergraduate level. Applicants must have an earned doctorate and be actively teaching biology at the undergraduate level.

2) Undergraduate fellowships for student trainees. Student applicants must have had a minimum of 1 year of biology and 1 year of chemistry.

Applications from faculty-student pairs are encouraged. Recipients may work at the MDIBL for 1 to 4 months in collaboration with senior scientists or, in the case of faculty or faculty-student pairs, may choose to work independently. Funding will provide for housing, travel, and research costs as well as a summer stipend. The maximum faculty fellowship is \$14,000 with up to \$6,000 as a stipend. The maximum undergraduate fellowship is \$6,900 with up to \$2,400 as a stipend.

The Mount Desert Island Biological Laboratory is internationally recognized for its studies of marine species and its contributions to comparative physiology and biomedicine. Deadline for completed applications is 15 December 1989. For more information and application materials, contact: **Pew Fellowship Program, MDIBL, Salsbury Cove, ME 04672. Telephone: 207-288-3605.**

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Your Contribution

A doctoral degree in biology, preferably entomology, with specialization in quantitative analysis of population change or a lesser degree with evidence of research experience and productivity equivalent to a doctoral degree. Employment experience in this field desirable, but not essential. Knowledge of the English language is essential. Preference will be given to Canadian citizens.

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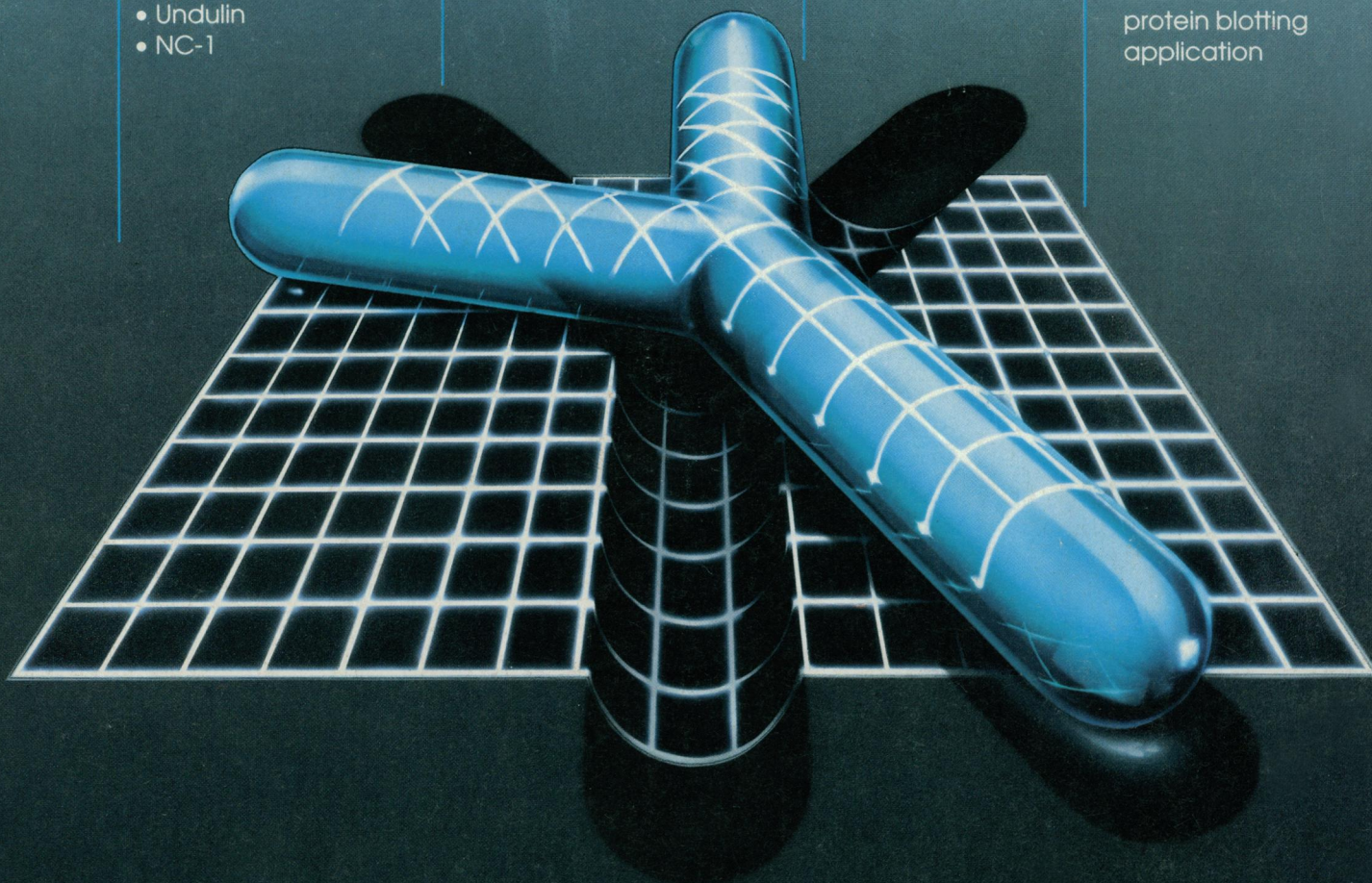
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