

thus appeal to established investigators who want a convenient summary of the field as well as to those who are looking for an entry point to the literature.

BARBARA HORWITZ

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## Reprints of Books Previously Reviewed

**Evolution and the Genetics of Populations.** Sewall Wright. University of Chicago Press, Chicago, 1984. Vol. 1, Genetic and Biometric Foundations. Vol. 2, The Theory of Gene Frequencies. Vol. 3, Experimental Results and Evolutionary Deductions. Vol. 4, Variability within and among Populations. Paper, \$15 each volume. *Reviewed* 163, 556 (1969); 168, 722 (1970); 196, 1191 (1977); and 207, 173 (1980).

**Geographical Ecology.** Patterns in the Distribution of Species. Robert H. MacArthur. Princeton University Press, Princeton, N.J., 1984. Paper, \$15. *Reviewed* 178, 389 (1972).

**The Hunger for Salt.** An Anthropological, Physiological and Medical Analysis. Derek Denton. Springer-Verlag, New York, 1984. *Reviewed* 219, 1419 (1983).

**Quantum Fields in Curved Space.** N. D. Birrell and P. C. W. Davies. Cambridge University Press, New York, 1984. Paper, \$27.95. *Reviewed* 218, 369 (1982).

## Books Received

**Air Monitoring Methods for Industrial Contaminants.** David A. Halliday, Ed. Biomedical Publications, Davis, Calif., 1984. xii, 428 pp., \$35.

**Alterations in Food Production.** Dietrich Knorr and Tom R. Watkins, Eds. Van Nostrand Reinhold, New York, 1984. xiv, 241 pp., illus. \$24.95.

**America's Electric Utilities.** Past, Present and Future. Leonard S. Hyman. Public Utilities Reports, Arlington, Va., 1983. viii, 297 pp., illus. \$25.

**Analysis and Control of Unsteady Flow in Pipelines.** Gary Z. Watters. 2nd ed. Butterworths, Boston, 1984. xii, 349 pp., illus. \$39.95.

**Analytical Calorimetry.** Vol. 5. Julian F. Johnson and Philip S. Gill, Eds. Plenum, New York, 1984. x, 402 pp., illus. \$69.50. From a symposium, Seattle, March 1983.

**Analytical Pyrolysis.** Techniques and Applications. Kent J. Voorhees. Butterworths, Boston, 1984. x, 486 pp., illus. \$69.95.

**Annual Review of Medicine.** Selected Topics in the Clinical Sciences. Vol. 35. William P. Cregar, Cecil H. Coggins, and E. William Hancock, Eds. Annual Reviews, Palo Alto, Calif., 1984. x, 720 pp., illus. \$27.

**Annual Review of Pharmacology and Toxicology.** Vol. 24. Robert George, Ronald Okun, and Arthur K. Cho, Eds. Annual Reviews, Palo Alto, Calif., 1984. xii, 556 pp. \$27.

**Chromosomes in Evolution of Eukaryotic Groups.** Arun Kumar Sharma and Archana Sharma, Eds. CRC Press, Boca Raton, Fla., 1983. Two volumes. Vol. 1. viii, 254 pp., illus. \$86. Vol. 2. viii, 269 pp., illus. \$89.

**The Classification of Psychopathology.** Neo-Kraepelinian and Quantitative Approaches. Roger K. Blashfield. Plenum, New York, 1984. xvi, 328 pp. \$35.

**Clinical Laboratory Safety.** Susan L. Rose. Lip-pincott, Philadelphia, 1984. xvi, 304 pp., illus. Paper, \$24.95.

**Clinical Pharmacology of Antiarrhythmic Therapy.** Benedict R. Lucchesi, James V. Dingell, and Richard P. Schwartz, Eds. Raven, New York, 1984. xvi, 275 pp., illus. \$45. Perspectives in Cardiovascular Research, vol. 10.

**The Coevolution of Climate and Life.** Stephen H. Schneider and Randi Londer. Sierra Club Books, San Francisco, 1984 (trade distributor, Random, New York). xii, 563 pp., illus. \$25.

**Commutative Semigroup Rings.** Robert Gilmer. University of Chicago Press, Chicago, 1984. xii, 380 pp. \$27; paper, \$11. Chicago Lectures in Mathematics.

**The Doctor and the Damned.** Albert Haas. St. Martin, New York, 1984. xii, 336 pp. \$16.95.

**Drug and Alcohol Abuse.** A Clinical Guide to Diagnosis and Treatment. Marc A. Schuckit. 2nd ed. Plenum, New York, 1984. xx, 267 pp. \$25. Critical Issues in Psychiatry.

**E. C. Stakman, Statesman of Science.** C. M. Christensen. American Phytopathological Society, St. Paul, Minn., 1984. x, 156 pp., illus. \$18.

**Early Biotic Responses to Advancing Lake Acidification.** George R. Hendrey, Ed. Butterworths, Boston, 1984. xiv, 173 pp., illus. \$32.50. Acid Precipitation Series, vol. 6. An Ann Arbor Science Book. From a symposium, Las Vegas, March 1982.

**Earthquakes, Earth Scientists, and Seismic-Safety Planning in California.** Arthur G. Svenson. University Press of America, Lanham, Md., 1984. xvi, 130 pp. \$18.75; paper, \$8.50.

**Ecological Aspects of Radionuclide Release.** P. J. Coughtrey, J. N. B. Bell, and T. M. Roberts, Eds. Blackwell Scientific, Palo Alto, Calif., 1983. xiv, 279 pp., illus. Paper, \$60. Special Publication No. 3 of the British Ecological Society. From a meeting, Colchester, England, April 1982.

**Economic Perspectives on Acid Deposition Control.** Thomas D. Crocker, Ed. Butterworths, Boston, 1984. xiv, 180 pp., illus. \$32.50. Acid Precipitation Series, vol. 8. An Ann Arbor Science Book. From a symposium, Las Vegas, March 1982.

**The Ecosystem Concept in Anthropology.** Emilio F. Moran, Ed. Published for the American Association for the Advancement of Science by Westview, Boulder, Colo., 1984. xvi, 320 pp. \$27.50. AAAS Selected Symposium, 92. From a symposium, Washington, D.C., Jan. 1982.

**Effects of Nuclear War on Health and Health Services.** World Health Organization, Geneva, 1984 (U.S. distributor, WHO Publications Centre USA, Albany, N.Y.). vi, 176 pp., illus. Paper, \$10.

**Elderly People and the Environment.** Irwin Altman, M. Powell Lawton, and Joachim F. Wohlwill, Eds. Plenum, New York, 1984. xviii, 343 pp. \$39.50. Human Behavior and Environment, vol. 7.

**Elm.** R. H. Richens. Cambridge University Press, New York, 1983. xii, 347 pp., illus. \$69.50.

**The Embers and the Stars.** A Philosophical Inquiry into the Moral Sense of Nature. Erasm Kohák. University of Chicago Press, Chicago, 1984. xiv, 269 pp., illus. \$17.50.

**Empire of Knowledge.** The Academy of Sciences of the USSR (1917-1970). Alexander Vucinich. University of California Press, Berkeley, 1984. x, 484 pp. \$29.95.

**Gene Function in Prokaryotes.** Jon Beckwith, Julian Davies, and Jonathan A. Gallant, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y., 1983. x, 328 pp., illus. \$52. Cold Spring Harbor Monograph Series, 15. From a symposium, Cold Spring Harbor, N.Y., June 1982.

**General Chemistry.** Darrell D. Ebbing. Mark S. Wrighton, Ed. Houghton Mifflin, Boston, 1984. xxiv, 970 pp., illus., + plates + appendices. \$34.95.

**Handbook of Powder Science and Technology.** M. E. Fayed and L. Otten, Eds. Van Nostrand Reinhold, New York, 1984. xiv, 850 pp., illus. \$79.50.

**Hazardous Waste Management.** In Whose Backyard? Michalann Harthill, Ed. Published for the American Association for the Advancement of Science by Westview, Boulder, Colo., 1984. xii, 205 pp., illus. \$22. AAAS Selected Symposium Series, 88. From a symposium, Toronto, Jan. 1981.

**Health Information Systems.** A Bibliography. Donald G. Ziegenfuss and James T. Ziegenfuss, Jr. IFI/Plenum, New York, 1984. viii, 247 pp. \$85. IFI Data Base Library.

**Hitler's Psychopathology.** Norbert Bromberg and Verna Volz Small. International Universities Press, New York, 1984. xii, 335 pp. \$27.50.

**Liquid Crystals and Ordered Fluids.** Vol. 4. Anselm C. Griffin and Julian F. Johnson, Eds. Plenum, New York, 1984. xiv, 1157 pp., illus. \$135. From a symposium, Las Vegas, March 1982.

**Lob Trees in the Wilderness.** Clifford and Isabel Ahlgren. University of Minnesota Press, Minneapolis, 1984. xii, 219 pp., illus., + plates. \$29.50; paper, \$12.95.

**Localization and Orientation in Biology and Engineering.** D. Varjú and H.-U. Schnitzler, Eds. Springer-Verlag, New York, 1984. xvi, 371 pp., illus. \$46. Proceedings in Life Sciences. From a conference, Tübingen, Germany, March 1983.

**Magnetism and Ligand-Field Analysis.** M. Gerloch. Cambridge University Press, New York, 1984. xiv, 593 pp., illus. \$110.

**Man and Technology.** The Social and Cultural Challenge of Modern Technology. Bruce M. Adkins, Ed. Cambridge Information and Research Services, Cambridge, England, 1983. xx, 300 pp. Paper, £15. From a symposium, London, April 1983.

**Managing Energy in Commerce and Industry.** Gordon A. Payne. Butterworths, Boston, 1984. x, 262 pp., illus. \$39.95.

**Manners and Meaning in West Sumatra.** The So-

cial Context of Consciousness. Frederick K. Errington. Yale University Press, New Haven, Conn., 1984. xiv, 175 pp., illus. \$20.

**Number Theory.** An Approach through History. From Hammurapi to Legendre. André Weil. Birkhäuser, Boston, 1984. xxii, 375 pp., illus. \$24.95.

**Nutrition, Food and Drug Interactions in Man.** Gérard Debry, Ed. Karger, Basel, 1984. x, 206 pp., illus. \$99.50. World Review of Nutrition and Dietetics, vol. 43. From a symposium, Paris, Nov. 1982.

**Nutritional Considerations in a Changing World.** Geoffrey H. Bourne, Ed. Karger, Basel, 1984. x, 216 pp., illus. \$99. World Review of Nutrition and Dietetics, vol. 44.

**Ocean Tides.** Mathematical Models and Numerical Experiments. G. I. Marchuk and B. A. Kagan. D. E. Cartwright, Transl. Ed. Pergamon, New York, 1984. xii, 292 pp., illus. \$65. Translated from the Russian edition by E. V. Blinova and L. Ya. Yusina.

**An Offshore Eddy in the California Current System.** J. J. Simpson et al. Pergamon, New York, 1984. 111 pp., illus. Paper, \$37.50. *Progress in Oceanography*, vol. 13, No. 1.

**Photoreception and Vision in Invertebrates.** M. A. Ali, Ed. Plenum, New York, 1984. x, 858 pp., illus. \$115. NATO ASI Series A, vol. 74. From an institute, Lennoxville, Quebec, Canada, July 1982.

**Pituitary Hyperfunction.** Physiopathology and Clinical Aspects. F. Camanni and E. E. Müller, Eds. Raven, New York, 1984. xviii, 430 pp., illus. \$80. Sero Symposia Publications from Raven Press, vol. 10. From a workshop.

**Prehistory of Oklahoma.** Robert E. Bell, Ed. Academic Press, Orlando, Fla., 1984. xxii, 432 pp., illus. \$48.50. New World Archaeological Record.

**Les Premières Théories Planétaires Chinoises.** Michel Teboul. Institut des Hautes Etudes Chinoises, Collège de France, Paris, 1983 (distributor, Diffusion De Boccard, Paris). xxii, 185 pp. Paper, 65 F. Memoires de l'Institut des Hautes Etudes Chinoises, vol. 21.

**Proceedings of the Fourth IIASA Task Force Meeting on Input-Output Modeling.** (Laxenburg, Austria, Sept. 1983.) Anatoli Smyslyayev, Ed. International Institute for Applied Systems Analysis, Laxenburg, 1983. viii, 329 pp., illus. Paper, \$15. IIASA Collaborative Proceedings Series, CP-83-S5.

**Proceedings of the 38th Industrial Waste Conference.** (West Lafayette, Ind., May 1983). Butterworths, Boston, 1984. viii, 1000 pp., illus. \$75.

**Progress in Inorganic Chemistry.** Vol. 31. Stephen J. Lippard, Ed. Interscience (Wiley), New York, 1984. vi, 474 pp., illus. \$65.

**Quarks, Gluons and Lattices.** Michael Creutz. Cambridge University Press, New York, 1984. vi, 169 pp., illus. \$34.50. Cambridge Monographs on Mathematical Physics.

**Recent Progress in the Study and Therapy of Brain Edema.** K. G. Go and A. Baethmann, Eds. Plenum, New York, 1984. xvi, 742 pp., illus. \$95. From a symposium, Groningen, Netherlands, June 1982.

**Receptor-Mediated Endocytosis.** P. Cuatrecasas and T. Roth, Eds. Chapman and Hall, London, 1984 (U.S. distributor, Methuen, New York). x, 304 pp., illus. \$77. Receptors and Recognition, series B, vol. 15.

**Sleep Mechanisms.** A. Borbély and J.-L. Valatx, Eds. Springer-Verlag, New York, 1984. xiv, 314 pp., illus. \$33. Experimental Brain Research Supplementum 8. From a school, Zuz, Switzerland, 1983.

**SO<sub>2</sub>, NO and NO<sub>2</sub> Oxidation Mechanisms.** Atmospheric Considerations. Jack G. Calvert, Ed. Butterworths, Boston, 1984. xiv, 254 pp., illus. \$32.50. Acid Precipitation Series, vol. 3. An Ann Arbor Science Book. From a symposium, Las Vegas, March 1982.

**Targets for the Design of Antiviral Agents.** E. De Clercq and R. T. Walker, Eds. Plenum, New York, 1984. xii, 378 pp., illus. \$57.50. NATO ASI Series A, vol. 73. From an institute, Les Arcs, France, June 1983.

**Text, Play, and Story.** The Construction and Reconstruction of Self and Society. Stuart Plattner and Edward M. Bruner, Eds. American Ethnological Society, Washington, D.C., 1984. viii, 364 pp. Paper, \$20. From a meeting, Baton Rouge, La., Feb. 1983.

**Trace Elements in Renal Insufficiency.** E. A. Quellhorst, K. Finke, and C. Fuchs, Eds. Karger, Basel, 1984. x, 206 pp., illus. \$68.50. Contributions to Nephrology, vol. 38. From a symposium, Bernried, Germany, March 1983.

**Trigant Burrow: Toward Social Sanity and Human Survival.** Selections from his writings edited by Alfreda S. Galt. Horizon, New York, 1984. xl, 172 pp. \$15.95.

**Tropical Nature.** Adrian Forsyth and Kenneth Miyata. Illustrations by Sarah Landry. Scribner, New York, 1984. xx, 248 pp. \$16.95.

**Uncertain Power.** The Struggle for a National Energy Policy. Dorothy S. Zinberg, Ed. Pergamon, New York, 1983. xxxvi, 260 pp. \$32.50; paper, \$11.95. From a workshop, May 1981.

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**Pharmacologist/Cell Biologist**, Ph.D. 1974, Stanford. Eight years of experience in an ivy-league medical school as faculty member and principal investigator on NIH grants. Broadly trained in neurobiology, cell biology, and biochemistry. Knows cell culture, receptor biochemistry, neuronal development, and tumor promoter, steroid, and polypeptide hormone mechanisms. Published in major journals. Excellent references. Seeks interesting senior position in academia/industry/government. Box 190, SCIENCE. 8/17, 24

**Plant Physiologist/Biochemist**, Ph.D. 1983. Six years of research experience; familiar with protein purification, plant tissue culture, radioisotope techniques; 2 years teaching experience. Seeks teaching or postdoctoral position with opportunity to learn recombinant DNA techniques. Forward correspondence by air mail to Box 1544, Bombay 400 001, India. X

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## AQUATIC TOXICOLOGIST

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## ASSISTANT PROFESSOR OF PHYSIOLOGY

Assistant professor of physiology, Department of Environmental Science and Physiology, Harvard School of Public Health. Biochemist or cell biologist interested in the development of bioassays for inhaled particles and the pathogenesis of environmental lung disease to work in the respiratory biology and occupational health programs. Applicants should have experience in respiratory biology, lung disease, and inhalation toxicology. Responsibilities include teaching and supervision of graduate students and research fellows. Minimum requirements: Ph.D. or M.D. degree and publications. Applicants should send their curriculum vitae, list of publications, and names of three to five references to: **Dr. Joseph J. Harrington, Department of Environmental Science and Physiology, Harvard School of Public Health, 665 Huntington Avenue, Boston, Mass. 02115**.

*Expression of interest is particularly invited from qualified women and minority candidates.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR**. Tenure-track position in the Department of Physiology. Applicants should have at least 2 years of postdoctoral training and hold the M.D. and/or Ph.D. degree in physiology. Excellence in teaching medical and graduate students is expected. Research interest in cardiovascular physiology with a cellular emphasis is preferred. Applicant should send curriculum vitae, list of publications, a brief statement of research interests, and at least three names of references by 15 September to: **James P. Filkins, Ph.D., Professor and Chairman, Department of Physiology, Loyola University of Chicago, Stritch School of Medicine, 2160 South First Avenue, Maywood, Illinois 60153**.

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The Division of Endocrinology and Metabolism at the Yale University School of Medicine invites applications at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. Candidates should have a strong background in molecular cloning, sequencing, and related techniques. Experience with protein purification, immunochemical techniques, and/or an interest in neuroscience would also be desirable. An M.D. degree with Board-eligibility or -certification in endocrinology is preferred. Please contact: **Arthur E. Broadus, M.D., Ph.D., Division of Endocrinology and Metabolism, Yale University School of Medicine, Fitkin 1, 333 Cedar Street, New Haven, Connecticut 06510**. Curriculum vitae and the names of three references should be provided. *Yale University is an Equal Opportunity/Affirmative Action Employer*. The position is presently available and is to be filled by 1 July 1985 at the latest.

**ASSISTANT PROFESSOR, MOLECULAR BIOLOGY**. The Department of Biology, New Mexico State University, is seeking an individual for a tenure-track position in molecular biology. The responsibilities of the position include teaching at the undergraduate and graduate levels and establishing a research program involving recombinant DNA technology appropriate to the objectives of the newly established Plant Genetic Engineering Laboratory at New Mexico State University. Applicants should send a letter including statements of research and teaching interests, curriculum vitae, and names, addresses, and phone numbers of three references to: **Dr. Robert T. O'Brien, Search Committee, Department of Biology, Box 3AF, New Mexico State University, Las Cruces, New Mexico 88003**. Deadline: 15 September 1984. *New Mexico State University is an Equal Opportunity/Affirmative Action Employer*.

**ASSISTANT PROFESSOR OF ENTOMOLOGY**: Applications are invited for a tenure-track, 12-month appointment. This is a 60 percent extension and 40 percent research assignment in mosquito biology and control. Basic qualifications: Ph.D. and postdoctoral experience. Position open to 1 October 1984. Please send curriculum vitae and three letters of recommendation to: **W. L. Bidlingmayer, Search Committee Chairman, Florida Medical Entomology Laboratory, University of Florida, 200 9th Street SE, Vero Beach, Fla. 32962**.

**ASSISTANT PROFESSOR, PLANT PHYSIOLOGY**. The Department of Biology, New Mexico State University, is seeking an individual for a tenure-track position in molecular aspects of plant stress physiology. The responsibilities of the position include teaching at the undergraduate and graduate levels and establishing a research program on molecular and cellular mechanisms of stress tolerance. Research interests should be appropriate to the objectives of the newly established Plant Genetic Engineering Laboratory at New Mexico State University. Applicants should send a letter including statements of research and teaching interests, curriculum vitae, and names, addresses, and phone numbers of three references to: **Dr. Gary L. Cunningham, Search Committee, Department of Biology, Box 3AF, New Mexico State University, Las Cruces, New Mexico 88003**. Deadline: 15 September 1984. *New Mexico State University is an Equal Opportunity/Affirmative Action Employer*.

**BOTANIST**: The Department of Biology invites application for a tenure-track faculty position at the assistant or associate professor level. Ph.D. is required. Candidates should have research interests in some area of plant physiology. Strong commitment to teaching at the undergraduate level is expected. Applicants should submit curriculum vitae, three letters of recommendation, and a statement of teaching and research interests by 1 October 1984 to: **Dr. James W. Smiley, Chairman, Department of Biology, College of Charleston, Charleston, S.C. 29424**. *Affirmative Action/Equal Opportunity Employer*.

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## DEAN, COLLEGE OF ARTS AND SCIENCES

Indiana University, Bloomington

We invite nominations and applications for the position of Dean of the College of Arts and Sciences, Indiana University Bloomington, to assume office on or before July 1, 1985. The College of Arts and Sciences is the largest and most extensive academic unit in Bloomington, the major campus of the university. The College comprises roughly 40 academic departments and about 20 interdisciplinary programs that draw upon the arts and sciences and related programs in other fields. Doctoral degrees are offered in 49 areas, many of which are ranked among the best in the nation. The College has full-time faculty of about 760, a current undergraduate major enrollment of 7,800, and a graduate enrollment of 2,800 through the Graduate School.

The Dean is the chief administrator of the College and reports directly to the Vice President of the Bloomington campus. The Dean is responsible for the instructional programs of the College, the development and enhancement of College faculty strengths, and the formulation and execution of College budgetary policies. The Dean will have a unique opportunity to shape undergraduate and graduate education and to foster research on the Bloomington campus. More than the typical amount of autonomy and freedom is granted the Dean at Indiana University, and we seek a creative, dynamic, and innovative person who is dedicated to excellence.

Candidates for the Deanship should be able to demonstrate a commitment to, and an understanding of all aspects of the scholarly enterprise. They should also have a record of successful administrative performance.

In keeping with its commitment to affirmative action, Indiana University particularly seeks information about or an expression of interest from, minority or women candidates. Application received by Oct. 15 are assured of consideration.

Please direct nominations and inquiries to:

Search and Screen Committee  
College of Arts and Sciences  
413 Woodburn Hall  
Indiana University  
Bloomington, IN 47405

## THE FIRST WORD IN... PHARMACEUTICAL DISCOVERY

Abbott Laboratories is a name recognized for quality and innovation in the field of pharmaceuticals. In recent years we have made a major commitment to pharmaceutical R&D and backed it with the most advanced equipment and facilities. Nowhere is our scientific support more evident than in our new pharmaceutical discovery area.

## RESEARCH PHARMACOLOGISTS

Two new positions have recently been created in the discovery area of our Pharmaceutical Division. One position focuses on the effects of inflammatory mediators using receptor-binding and other immunological and biochemical techniques. A familiarity with the handling and purifying of peptides and proteins would be desirable.

The second position involves investigating the generation of lipid mediators under various in vivo and in vitro experimental conditions to determine the effects of test compounds on the levels of mediators. A knowledge of lipid biochemistry and immuno assay and high performance liquid chromatographic techniques is desirable. Both positions require a Ph.D. and a minimum of 2 years experience in pharmacology, biochemistry or immunopharmacology.

Abbott Laboratories is a \$2.9 billion health care products manufacturer headquartered in an attractive suburban setting on the Lake Michigan shoreline, just 30 miles North of Chicago. We provide excellent salaries, full benefits including profit sharing and stock retirement plan and exceptional opportunities for professional growth and advancement. For consideration, send a resume with salary history to: **Charlene Crusoe-Ingram/Corporate Placement**. Abbott is an Affirmative Action Employer.

**ABBOTT**  
ABBOTT PARK IL. 60064  
"HEALTH CARE WORLDWIDE"

## THE FIRST WORD IN... SUCCESS

# Postdoctoral Research Associate

Sandoz, Inc. is responsible for pharmaceutical products that improve the quality of life. Our developments are the result of research conducted by professionals who specialize in many different fields.

Currently we have an opening for a Postdoctoral Research Associate/Visiting Scientist to investigate post-receptor events related to the mitogenic response to platelet-derived growth factor (PDGF). Applicants must have a strong background in biochemistry, biochemical pharmacology or cell biology. The ideal candidate would offer research experience in one or more of the following areas: receptor isolation, phospholipid metabolism and phosphorylation/dephosphorylation mechanisms.

The initial appointment would be for one year with the possibility of an extension to two or more years.

Positions at Sandoz offer personal satisfaction, professional opportunity/challenge, competitive salaries and an excellent benefits package. Conveniently located in northern New Jersey, our campus-like facilities are accessible via major thoroughfares.

For prompt consideration, please forward your resume along with salary requirements in confidence to:



Personnel Manager  
**SANDOZ, INC.**  
Sandoz Research Institute  
Route 10 (403-1)  
East Hanover, N.J. 07936  
An Equal Opportunity Employer M/F/H

## POSITIONS OPEN

### ASSISTANT/ASSOCIATE RESEARCH ONCOLOGIST

Ph.D. in biological sciences to work independently and collaboratively in basic and applied aspects of targeted chemotherapy of cancer. Degree concentration should have been in biochemistry, biophysics, immunology, cell biology, or pharmacology. Experience required in one or more of the following fields: Targeted chemotherapy, tumor biology, or molecular pharmacology. This is a hospital-based, full-time position; the salary range is \$30,000 to \$38,000 depending on qualifications. The successful candidate must qualify for a full-time research faculty position at the rank of assistant or associate professor in the Department of Medicine at Brown University.

Send résumé by 15 September 1984 to:

**Louis A. Leone, M.D.**  
Chairman, Search Committee  
Department of Medical Oncology  
Rhode Island Hospital  
Providence, R.I. 02902

*Rhode Island Hospital is an Equal Opportunity/Affirmative Action Employer and invites applications from minority and protected groups.*

### HARRIS LABORATORIES, INC. ASSOCIATE DIRECTOR ANALYTICAL SERVICES DIVISION

Harris Laboratories, Inc., one of the largest diversified independent laboratories in the United States, has a unique and excellent career opportunity for an associate director of one of its major divisions, the Analytical Services Division. The Harris Laboratories Analytical Services Division conducts a variety of quantitative analyses at its Lincoln facility on a contract basis for the pharmaceutical and chemical industries.

The position requires a Ph.D. in chemistry or pharmaceutical chemistry. Requirements include strong management and communication skills, as well as a good technical background. Technical background in chromatography is preferred, but not necessary. Responsibilities will include: Management, technical liaison with sponsors and regulatory agencies, and business development. Harris Laboratories is a rapidly growing, diversified organization offering career opportunities to performance-oriented, qualified individuals. Salary commensurate with experience. Interested candidates with experience are requested to send, in confidence, a copy of current curriculum vitae, names of three professional references, salary history, and a suitable cover letter to: **Harris Laboratories, Human Resources Department, P.O. Box 80837, Lincoln, Nebraska 68501.**

### CELL/MOLECULAR NEUROBIOLOGIST

The Department of Cell Biology has available a tenure-track assistant professor position for a neurobiologist whose research interests are focused on the cellular and/or molecular biology of the nervous system. Applicants should have a Ph.D. degree and 2 to 3 years of postdoctoral research experience. The new faculty member will (team) teach neurobiology to first-year medical students and will be expected to actively participate in our Ph.D. graduate program. Curriculum vitae, statement of research interests, and names of three references should be sent by 15 September 1984 to: **Neurobiology Search Committee, Department of Cell Biology, The University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, Texas 75235. The University of Texas is an Equal Opportunity/Affirmative Action Employer.**

**CHAIRMAN, DEPARTMENT OF PSYCHIATRY**—The Yale University School of Medicine invites applications and nominations for the position of professor and chairman of the Department of Psychiatry. Candidate must be a recognized leader in the field and have proven ability as a scholar, clinician, teacher, and administrator. Appointment is to be effective July 1985 or as soon thereafter as possible. Applications should be submitted prior to October 1984. *Qualified women and minority group members are encouraged to apply.* Curriculum vitae and bibliography should be sent to the Chairman of the Search Committee: **Dr. Samuel O. Thier, Department of Internal Medicine, Yale University School of Medicine, 333 Cedar Street, P.O. Box 3333, New Haven, Connecticut 06510.**

## POSITIONS OPEN

The ILLINOIS NATURAL HISTORY SURVEY announces two research positions.

(i) **ASSISTANT OR ASSOCIATE SCIENTIST:** Conduct research in modeling of ecological-economic systems of Illinois. Prefer experience in both ecological modeling and economic input-output analyses, a Ph.D. degree in a related field, and demonstrated research, funding, and publication records.

(ii) **POSTDOCTORAL FELLOW:** Conduct research in modeling of ecological-economic systems. Ph.D. in a related field.

By 17 September 1984, send a letter of application, résumé, and the names of three references to: **Dr. Robert W. Gorden, Illinois Natural History Survey, 607 East Peabody, Champaign, Ill. 61820; telephone: 217-333-6889.** Starting date for positions will be 2 January 1985. Salaries commensurate with experience.

*The Illinois Natural History Survey is an Equal Opportunity/Affirmative Action Employer.*

### THE HEBREW UNIVERSITY OF JERUSALEM THE SCHOOL OF NUTRITIONAL AND DOMESTIC SCIENCES ASSOCIATE PROFESSOR/PROFESSOR

The School of Nutritional Sciences of the Hebrew University's Faculty of Agriculture is seeking a candidate for a faculty position in nutrition. This is a 12-month position within the tenure system. Responsibilities include teaching undergraduates and graduate courses, supervision of field experience, advising graduate students, and directing their research. The applicant will be expected to develop a research and teaching program in clinical nutrition with strong emphasis on the training of prospective dietitians and to assist with the development of new nutrition studies pertaining to causes and prevention of disease as related to nutrition. Qualifications should preferably include M.D. or Ph.D. graduates with emphasis on clinical nutrition, and previous experience in research and teaching. Send letter and résumé to: **Dr. Naomi Trostler, Director, The School of Nutritional and Domestic Sciences, The Hebrew University of Jerusalem, Faculty of Agriculture, P.O. Box 12, Rehovot, 76100, ISRAEL.**

### CHAIRPERSON OF BIOCHEMISTRY

The School of Medicine, West Virginia University Medical Center, invites applications for the position of professor and chairperson of biochemistry. Applicants should have the Ph.D., M.D., or equivalent degree, a strong and continuing record in research and extramural funding, teaching experience, and evidence of administrative skills. An interest in expanding interdisciplinary research is highly desirable. Applicants should send curriculum vitae and the names of three references to: **Dr. William W. Fleming, Department of Pharmacology and Toxicology, West Virginia University Medical Center, Morgantown, W.Va. 26506.** Applications should be received no later than 1 October 1984. *West Virginia University is an Affirmative Action/Equal Opportunity Employer.*

### CHAIRPERSON, DEPARTMENT OF MEDICINE SCHOOL OF MEDICINE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF)

Qualified candidates are invited to apply for the position as chairperson of the Department of Medicine at UCSF School of Medicine.

Applicants should submit a curriculum vitae, bibliography, and the names of four references to:

**Professor J. Michael Bishop, Chairman  
Search Committee for  
Department of Medicine Chairperson  
c/o Ms. Valli McDougale, Dean's Office  
School of Medicine, S-224  
University of California, San Francisco  
San Francisco, Calif. 94143**

*UCSF is an Affirmative Action/Equal Opportunity Employer. Women and minorities are urged to apply.* Applications should be received by 15 October 1984.

**CYTOGENETICIST.** Position available in large clinical laboratory for cytogeneticist, Ph.D. level or certified, master's level to direct section. Experience with immunogenetics, tissue culture, and stem cell assay preferred. Please send curriculum vitae, references, and other supporting information including salary requirements to: **Personnel Manager, Molecular Medicine, Inc., 5606 Shields Drive, Bethesda, Md. 20817.**

## POSITIONS OPEN

### THE UNIVERSITY OF CALGARY DEPARTMENT OF BIOLOGY CELL/MOLECULAR BIOLOGIST

The University of Calgary invites applications for a tenure-track position at the assistant professor level in the Department of Biology. The successful candidate will be expected to develop an active research program in the area of cellular/molecular biology, to teach an undergraduate course in cell biology and a course in advanced cell and molecular biology. The latter course focuses on an in-depth analysis of eukaryotic cellular regulation, including control of the cell cycle. Applicants must have postdoctoral experience and strong credentials in molecular biology. Preference will be given to those with experience in recombinant DNA techniques.

The appointment will be open as of 1 January 1985, with an expected starting salary in the range of \$29,741 to \$36,000 based on the 1983-1984 scale.

*All applicants are encouraged to apply, but preference will be given to Canadian citizens and permanent residents.*

Applicants are requested to submit a complete curriculum vitae, and to have three letters of academic reference forwarded by 28 September 1984 to:

**Dr. R. W. Davies, Head  
Department of Biology  
The University of Calgary  
2500 University Drive NW  
Calgary, Alberta, Canada T2N 1N4**

**CELLULAR NEUROBIOLOGY.** Postdoctoral fellowship available, to participate in studies of synapse elimination at the neuromuscular junction in neonatal mammals and/or studies on a steady electric current generated by muscle. Techniques include electrophysiology, organ culture, electron microscopy, and use of ion selective microelectrodes. Send inquiries to: **Dr. William Betz, Department of Physiology, University of Colorado School of Medicine, Denver, Colo. 80262. An Equal Opportunity/Affirmative Action Employer.**

### CHAIRPERSON, Department of Pharmacology, Downstate Medical Center, State University of New York (SUNY)

Candidates and nominations are invited for a chairperson in pharmacology at SUNY Downstate Medical Center in Brooklyn, N.Y. Candidates should have an outstanding record of accomplishment in research and teaching. The chairperson is expected to administer and lead a department with major teaching programs for medical students and graduate students, and will be responsible for faculty recruitment and planning renovations supported by state funds. Preference will be given to the area of neuropharmacology and neurochemistry, but all fields of pharmacology will be considered.

*SUNY is an Equal Opportunity/Affirmative Action Employer and especially encourages applications from women and minority candidates.*

Send curriculum vitae including bibliography to: **Dr. James Ranck, Chairman, Pharmacology Search Committee, Box 31, SUNY Downstate Medical Center, 450 Clarkson Avenue, Brooklyn, New York 11203.**

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY DEPUTY DIRECTOR FOR RESEARCH

Applicants are invited to apply for deputy director for research at the Environmental Research Laboratory, Narragansett, Rhode Island. The deputy director has the responsibility for developing, planning, reviewing, evaluating, and coordinating national research programs to evaluate the occurrence, distribution, and environmental impact of pollution on marine environments which will provide the technical basis for regulating single chemicals and complex mixtures in ocean discharges, ocean dumping, and estuaries in general. Applicants must be U.S. citizens, possess a Ph.D. or equivalent in the physical or environmental sciences or related areas, have experience in managing state-of-the-art research programs, and have postdoctoral experience in laboratory research and field investigations, experience in the field of water pollution research, and a reputation as a recognized authority in his/her area of research specialization as evidenced by publications/presentations. Salary range is \$50,495 to \$65,642. Applications (SF-171, "Personal Qualifications Statement," available at most federal agencies) should be sent to: **Sheron Johnson, EPA Personnel Office, P.O. Box 18417, Las Vegas, Nev. 89114, no later than 14 September 1984. The United States Environmental Protection Agency is an Equal Employment Opportunity Employer.**



## PHARMACOLOGY FACULTY POSITIONS CORNELL UNIVERSITY

Applications are invited for two faculty positions in the Department of Pharmacology. Responsibilities will include the teaching of basic and/or clinical pharmacology to veterinary and graduate students, research, participation in the development of a strong graduate research program, and some administrative duties. We are particularly interested in people

- (i) who are currently applying the techniques of molecular biology to the study of receptors, ion channels, secretory processes, and other aspects of pharmacology, or
- (ii) with specific interests and experience in veterinary medicine, or
- (iii) with interests in cellular and molecular pharmacology associated with membrane function.

Applicants should have a D.V.M., Ph.D., M.D., or equivalent degree, an excellent research background, and the ability to develop a strong research program.

Current interests in the department include receptor structure and function, ion channels, neuropeptides, electrolyte transport, secretion, the role of calcium in cell activation, thyroid hormone action and metabolism, pharmacokinetics and studies of seizure disorders, allergic reactions, diarrheal disease, and diabetes.

Applications and three letters of recommendation should be sent to: **Dr. Geoffrey W. G. Sharp, Chairman, Department of Pharmacology, New York State College of Veterinary Medicine, Cornell University, Ithaca, N.Y. 14853.**

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

## BIOLOGICAL RESEARCH SCIENTISTS

The **King Faisal Specialist Hospital and Research Centre**, a modern tertiary care facility in Riyadh, Saudi Arabia, invites applicants for **RESEARCH SCIENTISTS** in the specialties of: Nutrition/Biochemistry; Immunology; Physiology.

The Biological Research Department is a young, rapidly expanding group with current disciplines represented in pharmacology, molecular biology, radiochemistry, biophysics, microbiology, cell biology, radiation biology and epidemiology.

Applicants should be capable of developing independent, vigorous, "hands-on" research programs within his/her discipline, which are mission oriented toward human disease problems. Two year contractual appointments are available at the levels of **Principal Scientist, Senior Scientist, and Staff Scientist**. Qualified candidates must have a Ph.D. in the specialty field, at least two years of post-doctoral experience, and an active research background inclusive of publications, technical addresses and professional memberships.

The level of position for which you may be considered is dependent upon individual qualifications, with salaries commensurate with the position. Salaries are attractive and potentially U.S. tax-free upon qualification. The married-status contracts include the additional benefits of free furnished housing, free transportation, 30 days annual paid leave, educational assistance for eligible dependents, bonus pay and leave, and more. Persons selected for these positions will be employed by, have a contract with and work directly for the government of the Kingdom of Saudi Arabia.

If you are interested in being considered for this multi-national Biological Research team, please submit your Curriculum Vitae, a 2-3 page statement summarizing your research plans, and your past salary/funding history, for processing, to: **HCA International Company, Department S-0817, P.O. Box 550, Nashville, TN 37202.** (HCA International Company is an Equal Opportunity Employer.)



**HCA  
International  
Company**

## POSTDOCTORAL FELLOWSHIPS IN NEUROSCIENCE

Several postdoctoral fellowship positions are available in a research intensive Department of Anatomy. Opportunities are available for research training in several disciplines including plasticity, development, transplantation, endocrinology, aging, cell biology, control mechanisms, and others. The department is equipped with modern instrumentation which allows a multidimensional approach to research problem-solving. A host of neurobiological techniques provide analysis from single-cell to organ system levels. A unique, optional training program in an anatomical teaching discipline can be pursued which will provide additional opportunities in the job market for neuroscientists interested in teaching gross anatomy or histology.

Preceptors include:

Paul Coleman, Ph.D.	John Olschowka, Ph.D.
Manuel del Cerro, Ph.D.	David Penney, Ph.D.
Suzanne Felten, Ph.D.	Carol Phelps, Ph.D.
David Felten, M.D., Ph.D.	Patricia Rodier, Ph.D.
Dorothy Flood, Ph.D.	Celia Sladek, Ph.D.
Don Gash, Ph.D.	John Sladek, Jr., Ph.D.
Suzanne Haber, Ph.D.	Loretta Tang, Ph.D.
Gloria Hoffman, Ph.D.	Stanley Wiegand, Ph.D.
Rebekah Loy, Ph.D.	Hermes Yeh, Ph.D.
Mary Notter, Ph.D.	

Forward a curriculum vitae, representative publications, a statement of research goals, and names of three references to:

**Dr. David L. Felten**  
Postdoctoral Coordinator  
Department of Anatomy  
University of Rochester  
School of Medicine and Dentistry  
601 Elmwood Avenue  
Rochester, N.Y. 14642

*Equal Opportunity Employer, M/F*

## Postdoctoral Researchers

### Molecular Biology

Genentech, Inc., on the San Francisco Peninsula, is a recognized leader in the fields of Biotechnology and Molecular Biology. Our Molecular Biology Department has openings for Postdoctoral Researchers in the following basic research areas:

- Neurobiology
- Oncogenes and Growth Factors
- Eukaryotic Gene Expression
- Lymphokines

The successful candidates will have a PhD in Molecular Biology, Biochemistry or another relevant degree with a record of scientific excellence throughout their graduate work.

Genentech offers an excellent compensation and benefits package coupled with the opportunity to make a significant contribution to our organization. Please send resume to Human Resources Department, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. An equal opportunity employer.

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## POSITIONS OPEN

### CHEMIST Doctorate in Medicinal Chemistry or Related Area

Liaison responsibility between United States scientific community and the National Cancer Institute (NCI). Will travel maximum of 2 days each week within the United States.

Must possess good written and verbal ability to communicate at research director level of commercial and institutional laboratories.

This contractor has supported areas of scientific need of the NCI for more than 20 years.

Please send résumé to:

**STARKS C. P. INC.**  
818 Roeder Road, Suite 510  
Silver Spring, Md. 20910  
*Equal Opportunity Employer*

### DEVELOPMENTAL/REPRODUCTIVE BIOLOGIST DEPARTMENT OF OBSTETRICS— GYNECOLOGY THE UNIVERSITY OF ROCHESTER MEDICAL CENTER

seeks a faculty member with expertise in the area of reproductive physiology to direct the laboratory of the department's in vitro fertilization program and to develop an independent research program. Special interest sought in preimplantation physiology or the study of preimplantation embryology.

Candidate must have Ph.D. degree in developmental biology, genetics, or reproductive endocrinology/physiology/biochemistry. In addition, it is preferable for applicants to have postdoctoral as well as teaching experience.

Academic rank and salary are negotiable. Please send curriculum vitae, brief statement of research interests and goals, selected reprints of publications, and three letters of reference to: **CARE Search Committee, Department of Obstetrics-Gynecology, Box 668**

**THE UNIVERSITY OF ROCHESTER**  
School of Medicine and Dentistry  
601 Elmwood Avenue  
Rochester, New York 14642  
*An Equal Opportunity Employer, M/F*

**DIRECTOR OF SCIENTIFIC SERVICES:** Center for Infectious Diseases, Centers for Disease Control (CDC), Atlanta, Georgia. Applicants should have an earned doctorate degree in biological or medical sciences and have a proven record of successful experience in the management of a service oriented organization that has collaborative research and development opportunities. The successful candidate will plan, direct, manage, and supervise the activities of a multidisciplinary team of scientists, veterinarians, technical staff, veterinary assistants, animal caretakers, equipment specialists, and others engaged in providing research animals, tissue cultures, hybridomas, microbiological media, laboratory glassware, electronic devices, specimen and data handling, and several other services to the scientists in CDC's research programs. The position is a very responsible one and carries a GS grade of GS-14/-15 (salary range of \$42,928 to \$65,642 per annum) depending on qualifications and experience. A fringe benefit package is supplemental to the base salary. Interested, highly qualified individuals should send a complete résumé and curriculum vitae including the names of three individuals who may be contacted as references by 5 September 1984 to:

**Personnel Management Office**  
Attention: William Hudson  
Centers for Disease Control  
Atlanta, Georgia 30333  
Telephone: 404-329-3615

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

**OPEN FACULTY POSITION.** Full-time position in the Department of Otorhinolaryngology, the University of Michigan. To develop a research program of experimental studies of the anatomy and cell biology of the inner ear for integration with ongoing research programming. Ph.D. in anatomy and/or cell biology, special knowledge of anatomy and pathology of inner ear, transmission, and scanning EM. Send curriculum vitae and three letters of recommendation to: **Josef M. Miller, Ph.D., The University of Michigan, Kresge Hearing Research Institute, 1301 East Ann Street, Ann Arbor, Michigan 48109.** *An Equal Opportunity Employer.*

## POSITIONS OPEN

**DIRECTOR, ENVIRONMENTAL STUDIES PROGRAM.** Ph.D. preferred in a field which complements present courses and research activities in the natural and social sciences. The director is a member of the faculty with opportunity for tenure who will teach in the program and, with the Environmental Studies Committee and appropriate academic departments, develop courses suitable for a liberal arts, undergraduate college. Academic rank and salary will depend on qualifications for an appointment to start in September 1985. Send curriculum vitae and names of three references to: **Professor A. Myrick Freeman III, Director, Environmental Studies Program, Department of Economics, Bowdoin College, Brunswick, Maine 04011** by 15 October 1984. *Bowdoin College is an Equal Opportunity/Affirmative Action Employer.*

### DIRECTOR OF RESEARCH, M.D. or Ph.D.

Applications and nominations are invited for the position of director of research at the newly constructed Tampa Unit of the Shriners Hospitals for Crippled Children. The individual will be supported by an endowed Chair of Orthopedic Research and will have a joint appointment as professor, University of South Florida College of Medicine. Candidates should have experience and a record of scholarly activity relative to research in the development, repair, and regeneration of the skeletal system. Candidates should also have a record of excellence in teaching, active research interests, and administrative and leadership skills. The individual will be expected to direct, with the chief of staff of the hospital, an array of research related to developing cartilaginous and osseous tissue. Applications and nominations will be accepted until 1 October 1984 to: **Lewis A. Barness, M.D., Chairman, Search Committee, University of South Florida, College of Medicine, Department of Pediatrics—Box 15, 12901 North 30 Street, Tampa, Fla. 33612.** *An Affirmative Action/Equal Opportunity Employer.*

Wanted: an **ELECTRONMICROSCOPIST** interested in collaborating with an ophthalmic pathologist while pursuing an independent career in ultrastructural studies of the eye or visual system. Interested candidates should send curriculum vitae and names of two references to: **Peter Gouras, M.D., Director of Research, Department of Ophthalmology, College of Physicians and Surgeons, Columbia University, 630 West 168 Street, New York, N.Y. 10032.**

**ELECTRON MICROSCOPE TECHNICIAN** wanted to manage microscope facility in Biology Department and to assist with academic research. Applicant should have research experience in transmission and scanning EM and in preparation of biological materials. Send curriculum vitae and three letters of reference to: **Dr. Allan Berlind, Biology Department, Wesleyan University, Middletown, Conn. 06457.** *Wesleyan University is an Equal Opportunity/Affirmative Action Employer.*

**ELECTRON MICROSCOPY OF AGING BRAIN.** Postdoctoral fellowship, research instructor, or research associate possible. Available immediately. Experience in electron microscopy of nervous system essential. Experience in light microscopy also expected. Send résumé, copies of papers and names of three references to: **Dr. Paul D. Coleman, Department of Anatomy, University of Rochester Medical Center, Rochester, N.Y. 14642.** *The University of Rochester is an Affirmative Action/Equal Opportunity Employer.*

### GEOCHEMIST

The University of California, Davis, Department of Geology, has an opening for a 1-year temporary faculty position for fall 1984. Specific fields are open; however specialization in isotope and economic geochemistry are desirable. The department has strong programs in paleobiology, paleoceanography, petrology, geophysics, and crust and mantle evolution. A Ph.D. is required. Responsibilities include graduate and undergraduate teaching and research in geochemistry.

Applicants should submit curriculum vitae, statement of research and teaching interests, and the names of three references as soon as possible, as the position is for the fall 1984 quarter.

We anticipate that this position will be opened on a permanent, tenure-track basis during the next academic year. A successful candidate for this temporary position can apply for the tenure-track position. Inquiries and applications should be sent to: **Chair, Search Committee, Department of Geology, University of California, Davis, California 95616.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ECOLOGIST: DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

The National Sea Grant College Program (NSGCP), Office of Oceanic and Atmospheric Research, NOAA, announces a vacancy for the position of ecologist, GM-408-13/14, Rockville, Maryland. Vacancy closes 21 September 1984. Incumbent will direct Office of Sea Grant program in environmental studies and serve as an adviser and consultant with NSGCP. Within the area of environmental studies, maintain cognizance of sea grant efforts nationwide. Direct and develop programs concerned with environmental studies focused on marine resource development and marine environmental quality problems. Participate in planning sea grant budgets. Maintain responsibility through whole cycle of grant applications; review, evaluate, and recommend, and negotiate grants; conducts on-site review of institutional programs. Persons interested in applying **MUST** request a copy of the vacancy announcement by writing to: **NOAA, 6001 Executive Boulevard, Rockville, Md. 20852, attention: R. Williams, RAS/DC21,** or telephoning: **301-443-8425.** Applications should be submitted on Standard Form 171. *Department of Commerce is an Equal Opportunity Employer.*

### THREE FACULTY POSITIONS BIOCHEMISTRY AND MOLECULAR BIOLOGY UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

The Department of Biochemistry and Molecular Biology of the University of Oklahoma College of Medicine announces three new, state-funded, tenure-track positions at the level of **assistant or associate professor**, to begin on or after 1 January 1985, which include technicians' salaries, internal start-up funding, and modern laboratory facilities in an expanding, research-oriented department. We are seeking individuals who have demonstrated the ability to conduct independent, vigorous research of high quality and who have a commitment to excellence in teaching graduate students and students in the health professions. Salary will be on a 12-month basis and commensurate with experience. Applicants must hold the Ph.D. or equivalent degree and have two or more years of postdoctoral experience. Interested persons should send curriculum vitae, at least three letters of reference, and a description of research plans, postmarked no later than 1 October 1984, to:

**Dr. Robert H. Broyles, Search Committee Chair**  
Department of Biochemistry and Molecular Biology  
University of Oklahoma Health Sciences Center  
P.O. Box 26901  
Oklahoma City, Oklahoma 73190

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

### MEMORIAL UNIVERSITY OF NEWFOUNDLAND CANADA FACULTY OF SCIENCE HEAD DEPARTMENT OF BIOLOGY

Applications are invited for the position of head, Department of Biology, for September 1985. The department has 45 full-time faculty members and over 60 support staff and offers undergraduate and graduate programs to the Ph.D. level. Research and teaching are, at present, in four main focal areas: Marine biology, evolution and ecology, parasitology/entomology, and cell biology/microbiology. Some faculty hold cross-appointments to the Marine Science Research Laboratory, the Newfoundland Institute for Cold Ocean Science, the Department of Biochemistry, and the Faculty of Medicine.

Applicants should have demonstrated ability in research and be able to show leadership and administrative ability appropriate to the post. The applicant should have a broad appreciation of the biological field and be responsive to the diverse requirements of this multi-disciplinary department. The appointment (subject to budget) will be at the level of full professor, commencing on 1 September 1985.

Address applications or requests for further information to: **Dr. P. J. Heald, Dean of Science (Chairman Biology Headship Search Committee), Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1B 3X7.** Applications should be received by 31 October 1984.

*In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents, in the first instance.*

## ENGENICS, INC.

Engenics, Inc. is a Bay Area bioprocess company developing innovative systems for commercial scale biological synthesis and purification of chemicals. Engenics offers a competitive salary and benefits package. Positions in the areas of microbial genetics, biochemical engineering and process technology evaluation are immediately available. We are looking for candidates with the following qualifications:

**Microbial Geneticist**—Ph.D. with 2-3 years post-doctoral experience; experience with recombinant DNA techniques and cellular physiology is required. (Position IM-1)

**Microbial Geneticist**—MS or BS plus 2 years laboratory experience; experience with DNA recombinant techniques is also required. (Position RAM-2)

**Senior Biochemical Engineer**—MS or Ph.D. with at least 3 years industrial experience, preferably in the pharmaceutical industry. (Position IBE-3)

**Process Technology Evaluation Engineer**—BS or MS with at least 5 years industrial experience in pharmaceutical product and manufacturing cost evaluation; emphasis will be on engineering economics and process design. (Position TAE-1)

Please indicate applicable position number and send CV and list of references to:



Dr. S. E. Shumate II  
Vice President for Research  
and Development  
Engenics, Inc.  
3760 Haven Avenue  
Menlo Park, CA 94025

## PROJECT SCIENTIST

M.S./Ph.D. with demonstrated experience in the use of flow cytometry in biological research to operate an Ortho Cytofluorograph. Will be a member of a multidisciplinary research team investigating developmental and reproductive toxicological effects of environmental pollutants. Will serve as an expert consultant and will collaborate with other team members to apply flow cytometric techniques to a variety of research problems including immunology, bio-rational pesticides, sperm analysis and cell cycle kinetics. The incumbent is expected to operate the core facility given a broad outline of specific program needs. In addition to overseeing the facility, Ph.D. level employee is expected to develop an independent research program within the framework of developmental biology.

Send curriculum vitae including salary history and present salary requirements in confidence to:

Glenda Ward Jahtaniah  
NORTHROP SERVICES  
ENVIRONMENTAL SCIENCES  
P.O. Box 12313  
Research Triangle Park, N.C. 27709

An Equal Opportunity Employer

## Director of Corporate and Industrial Research Development

The State University of New York at Stony Brook invites nominations and applications for the position of Director of Corporate and Industrial Research Development. The incumbent will report to the Vice Provost for Research and Graduate Studies. He/She will represent the range of Stony Brook's research activities to industry, business, and foundations, and foster collaborative interaction between the university, particularly Stony Brook's Center for Biotechnology, and major firms and small businesses in biotechnology.

The Director will have primary responsibility for enhancing industry's awareness and support of Stony Brook's scientific, technical, and biomedical research and graduate programs, and to develop mechanisms to promote formal cooperative relationships between the university and appropriate businesses and industries.

Candidates for this position should have an earned doctorate in the life sciences and should be accomplished researchers in their area of scientific expertise. Candidates must demonstrate a creditable background in academic and/or industrial research.

Salary will be negotiable and competitive with middle management positions in the private sector, between \$45-60,000.

Nominations and applications should be addressed to:

Dr. Francis Johnson, Chair, Search Committee for Director of Corporate and Industrial Research Development, Department of Pharmacology, SUNY Stony Brook, Stony Brook, NY 11794.

Deadlines for receipt of nominations and applications is August 31, 1984.

SUNY Stony Brook is an affirmative action/equal opportunity educator and employer. AK#1588



State University of New York  
**Stony Brook**

## NATIONAL INSTITUTE OF ARTHRITIS, DIABETES, AND DIGESTIVE AND KIDNEY DISEASES OFFICE OF THE DIRECTOR

## DIRECTOR DIVISION OF DIGESTIVE DISEASES (and Associate Director for Digestive Diseases)—Dual Position

Incumbent must be a recognized and respected leader in the field of digestive diseases related research, with experience and expertise in the development of new knowledge and new technology in digestive diseases. Responsibilities include identifying research needs and opportunities; planning, developing and implementing a high quality extramural research and research training program in the field; and conducting laboratory investigations in digestive diseases related research.

**Salary Range**—\$58,938 to \$66,400 per annum

Position information, SF-171 (application), and qualifications requirements may be obtained by contacting:

Mr. Clifford Moss, Executive Secretary  
Search Committee for Director,  
Division of Digestive Diseases  
Building 31, Room 9A34  
National Institutes of Health  
Bethesda, Maryland 20205  
(301) 496-4231

Applications must be postmarked no later than August 31, 1984.

AN EQUAL OPPORTUNITY EMPLOYER



## POSITIONS OPEN

The **DEPARTMENT OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS** at Louisiana State University (LSU) Medical Center (LSUMC) in New Orleans invites applications for current and anticipated **FACULTY POSITIONS** at LSUMC. Under exceptional circumstances, appointments at more senior levels will be considered. All positions are tenure-track, state-salaried, and include generous start-up funds. Applications are encouraged from, but are not limited to, the following areas of pharmacology: Cardiovascular, renal, pulmonary, and molecular. Candidates will be evaluated on the basis of research and teaching experience/potential. Successful candidates will be expected to develop and maintain funded research programs and to participate in the teaching of pharmacology throughout the medical center. Starting dates are negotiable. Send curriculum vitae, a brief description of research plans, and the names of three references to: **Dr. Lee Roy Morgan, Professor and Chairman, Department of Pharmacology and Experimental Therapeutics, LSU Medical Center, 1901 Perdido Street, New Orleans, La. 70112-1393. Affirmative Action/Equal Opportunity Employer.**

**IMMUNOLOGISTS.** Research associate position available immediately for a Ph.D. immunologist who is interested in immunopharmacology/toxicology and/or oncogenesis. A full-time research position with the capacity for both collaborative and independently directed research in a multidiscipline oriented laboratory. Preference to candidates familiar with immune effector (cytotoxic/regulator (cytokines) circuits. Forward curriculum vitae, statement of research interests, and the names of three references to: **Dr. Loren D. Koller, WOI Regional Program in Veterinary Medicine, University of Idaho, Moscow, Idaho 83843.** Application deadline: 1 September 1984. *An Affirmative Action/Equal Opportunity Employer.*

### INFECTIOUS DISEASE FACULTY POSITION

Department of Medicine, Yale University, seeks tenure-track faculty member, Board-certified/eligible in infectious disease, to establish independent research program in bacteriology or parasitology. Skill and interest in the molecular basis of organism pathogenicity is desirable. Rank and salary commensurate with qualifications. Send curriculum vitae to: **Vincent T. Andriole, M.D., Chief, Section of Infectious Diseases, Department of Medicine, Yale University, 333 Cedar Street, New Haven, Conn. 06510.** *Equal Opportunity Employer.*

The University of Michigan Medical School, **Department of Anesthesiology** may have, from time to time, several positions available at the **INSTRUCTOR THROUGH PROFESSOR** level. Board-certified or -eligible anesthesiologist qualified to obtain Michigan licensure. Research, clinical, didactic experience necessary. Reply to: **Box 189, SCIENCE. A nondiscriminatory, Affirmative Action/Equal Opportunity Employer.**

**LARGE ANIMAL SURGEON:** Tufts University School of Veterinary Medicine (TUSVM) invites applications for a faculty position in large animal surgery based at Grafton, commencing 1 September 1984 to 1 July 1985. The applicant for this appointment should have a D.V.M. or equivalent degree and, preferably, be Board-certified by the ACVS. The candidate also should have experience in teaching, research, and service. A special interest in orthopedic surgery is desirable. The candidate will be encouraged to develop research programs at Tufts and to interact for this purpose with faculty at other New England universities and research institutes. Applications (letter of intent, curriculum vitae, and names of at least three references) should be submitted to: **Dr. Anthony Schwartz, Chairman, Department of Surgery, TUSVM, 350 South Huntington Avenue, Boston, Mass. 02130.** Salary and rank commensurate with experience and qualifications.

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

### LIFE SCIENTIST

People-oriented, persistent achiever with an entrepreneurial flair, outstanding communications skills, and broad pharmaceutical industrial experience needed for executive and scientific search. We are a major search and consulting firm with a well-known reputation. Send résumé and references in complete confidence to:

**Robert S. Joslin, Ph.D.  
Joslin & Associates, Ltd.  
291 Deer Trail, Suite C  
Barrington, Ill. 60010**

## POSITIONS OPEN

### THE UNIVERSITY OF CALGARY DEPARTMENT OF BIOLOGY MAMMALIAN PHYSIOLOGIST

The University of Calgary invites applications for a 3-year limited-term position at the assistant professor level in the Department of Biology. The successful candidate will be expected to develop an active research program in the area of mammalian membrane function and to teach human physiology, largely to premedical students and general and cellular physiology at the graduate level. Applicants must have postdoctoral experience and research expertise in one of the following areas: Receptor physiology, membrane transport mechanisms, compartmentation, or control of intracellular pH.

The appointment will be open as of 1 January 1985 with an expected starting salary in the range \$39,741 to \$36,000, based on the 1983-1984 scale.

*All applicants are encouraged to apply, but preference will be given to Canadian citizens and permanent residents.*

Applicants are requested to submit complete curriculum vitae, and to have three letters of academic reference forwarded by 28 September 1984 to:

**Dr. R. W. Davies, Head  
Department of Biology  
The University of Calgary  
2500 University Drive N.W.  
Calgary, Alberta, Canada T2N 1N4**

**MASS SPECTROSCOPIST.** The Department of Chemistry, Arizona State University, is seeking applicants for a permanent position as research specialist in mass spectrometry. Responsibility for operation and maintenance of Varian MAT 312 high-resolution mass spectrometer. Opportunities exist for collaborative research with faculty. Salary competitive. Ph.D. in chemistry preferred with strong background in mass spectrometry. Experience in one or more of the following areas is desirable: GC/MS, FAB/MS, MIKES, FD, CI. Send résumé to: **Personnel Department, Arizona State University, Tempe, Ariz. 85287,** by 15 September. Send three letters of recommendation to: **Dr. Morton Munk, Department of Chemistry, Arizona State University, Tempe, Ariz. 85287.** *Arizona State University is an Affirmative Action/Equal Opportunity Employer.*

**MECHANICAL ENGINEERING—RESEARCH ASSOCIATE.** Conduct analytical and experimental research on development of laser bone saw which will permit the cutting of human or animal bones with laser beams. Ph.D. in mechanical engineering, research experience in heat transfer and thermal-fluid sciences required. Salary: \$20,000 per year. Los Angeles, California. Send this ad and your résumé to: **Job Number 9144, P.O. Box 865, Sacramento, California 95804,** no later than 4 September 1984.

### MEDICAL WRITER/REPORTER

For large international public relations agency. Require educational background in health sciences and experience with major newspaper, wire service, or other writing for lay audience. Send résumé, writing samples, references, salary requirements to: **Box 188, SCIENCE.**

**MICROBIOLOGIST.** Assistant or associate professor level depending on qualifications. Documented excellence in teaching mandatory. Should have own research grants as department is scientifically active (91 publications in 1983). Graduate student stipend between \$6,000 to \$11,000 without geographic restriction. School located in area with excellent year-round cultural and recreational opportunities. If interested please send curriculum vitae, bibliography, and three (3) letters of recommendation to:

**H. Hugh Fudenberg, M.D.  
Department of Basic and Clinical Immunology and Microbiology  
Medical University of South Carolina  
171 Ashley Avenue  
Charleston, South Carolina 29425**

*An Equal Opportunity/Affirmative Action Employer, M/F.*

**MICROBIOLOGIST-NEUROBIOLOGY**—Salary \$20,000 per year, 40 hours per week. Ph.D. in biology or M.D. in microbiology or medicine, 1 year of experience and 1 year of microbiology research field; study growth, structure, and development microorganisms, isolate, control environment, chemical analysis, immunology, neuroendocrinology. Contact: **Philadelphia Job Bank Office, 444 North 3rd Street, Philadelphia, Pa. 19123.** Refer to Order Number 3798119.

## POSITIONS OPEN

### MOLECULAR BIOLOGIST

A well-funded staff scientist position is available immediately to work with a group studying the biology of bovine coronavirus. Expertise in handling mRNA, in vitro translation, cDNA cloning, and DNA sequencing is required. Individuals with experience in working with monoclonal antibodies, peptide chemistry, or the expression of cloned DNA in prokaryotes will merit more immediate consideration. Salary commensurate with experience. Send résumé and the telephone numbers of three references to:

**Dr. Stephen D. Acres  
Veterinary Infectious Disease Organization (VIDO)  
University of Saskatchewan  
124 Veterinary Road  
Saskatoon, Saskatchewan, Canada S7N 0W0  
Telephone: 306-343-3155**

### MOLECULAR BIOLOGY POSTDOCTORAL

Positions available immediately in a program project associated with Departments of Biochemistry and Zoology.

(i) Research in molecular mechanisms of mutagenesis in *Drosophila* germ cells by cloning of mutants and analysis of mutants by restriction mapping, sequencing, and expression vectors.

(ii) Research in enzymology of DNA repair mechanisms. Experience in protein purification and use of HPLC.

(iii) Research in nucleic acid biochemistry with experience in the use of HPLC.

Send curriculum vitae and names of three references to: (i) **Dr. William R. Lee, Department of Zoology and Physiology** or (ii, iii) **Dr. W. A. Deutsch, Department of Biochemistry, Louisiana State University, Baton Rouge, La. 70803.** *An Equal Opportunity Employer.*

### OVERSEAS SCIENTIFIC CONSULTANTS

Overseas scientific consultancy opportunities; positions are becoming available throughout 1985 for work in Africa, Central and South America, and in Southeast Asia in the disciplines of coastal geology, organic and inorganic chemistry, ecology, fisheries, aquaculture, and project management. Need résumés, references, and letters of commitment for short- to medium-term (1 to 6 months) overseas consultancies. Attractive salary and benefits package to be offered. Please send a letter with your ideas, a résumé, and three references by 15 September 1984 to: **Karen Keith, Personnel Director, Research Planning Institute, 925 Gervais Street, Columbia, South Carolina 29201.**

**PLANT PHYSIOLOGIST,** at GS-11 (\$25,489) or GS-12 (\$30,549), grade based on qualifications. One federal career civil service position with United States Department of Agriculture (USDA)-Agricultural Research Service (ARS) in Weslaco, Texas, to conduct basic research in the physiology/biochemistry of sugarcane and sweet sorghum. Research objectives include the effect of production/handling variables on basic mechanisms regulating and controlling sugar yield from sugarcane and sweet sorghum. Strong background in plant physiology and biochemistry preferred. Ph.D. or equivalent education/experience required. Candidate must be United States citizen. *Equal Opportunity Employer.* For application procedures contact: **L. G. Burkes, SR-102-84; USDA-ARS-PD-POB; Southern Region Section; Building 417, BARC-East; Beltsville, Md. 20705.** Telephone: 301-344-1508.

### POSTDOCTORAL FELLOW

Position immediately available in a group interested in the cellular and immunological aspects of connective tissue in rheumatoid diseases. Studies utilize cell culture for cloning, attachment and proliferation assays, hybridoma and general immunologic techniques. Salary commensurate with experience. Send curriculum vitae and names of three references to: **Steffen Gay or William T. Koopman, Division of Clinical Immunology and Rheumatology, University of Alabama in Birmingham Medical Center, Birmingham, Ala. 35294.** *An Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available immediately for recent Ph.D. for study of nucleic acid abnormalities in autoimmune disease using recombinant DNA techniques. Background in biochemistry and/or immunology desirable. Please submit statement of research interests and curriculum vitae to: **Dr. Charles Steinman, Director, Division of Rheumatology, State University of New York-Downtown Medical Center, 450 Clarkson Avenue, Box 42, Brooklyn, N.Y. 11203.** *Equal Opportunity/Affirmative Action Employer, M/F.*

## MOLECULAR BIOLOGIST

Two MOLECULAR BIOLOGIST positions are available at the U.S. Department of Agriculture (USDA), Animal Disease Center at Plum Island, NY.

One position will involve characterization of foot-and-mouth disease virus (FMDV) (an RNA containing animal virus) by molecular cloning. The individual will clone related strains and characterize these by recombinant DNA techniques, including nucleic acid sequencing.

The second position involves study of the subcellular location and functional roles of the nonstructural proteins of FMDV. Biochemical, immunological and recombinant DNA techniques will be used. A Ph.D. in molecular biology or biochemistry is desirable for both positions. Applicants should have experience in recombinant DNA and DNA sequencing methods. Research experience with mammalian viruses is desirable. The term of employment: 1 year with renewal for a second year possible. Salary commensurate with training and experience. Send curriculum vitae and names of three references to:

**Dr. J. J. Callis**  
**USDA ARS NER NAA**  
**Plum Island Animal Disease Center**  
**P.O. Box 848**  
**Greenport, NY 11944**

AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER.  
WOMEN AND MINORITIES ARE URGED TO APPLY.

## DIRECTOR OF ADMINISTRATION

The National Research Council (NRC), the principal operating arm of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine, is a nationally prominent non-profit, nongovernmental institution located in Washington, D.C. serving as a principal advisor to the government on scientific and technical policy issues. As such, the NRC is the hub of a large network of 8 major program units with approximately 900 staff, and nearly 1000 active committees utilizing the voluntary services of outside experts to perform studies. The position of Director of Administration will become open, and the NRC now invites applications for it. The Director of Administration serves as the key executive of the Academy Complex responsible for the management, planning, coordination, and implementation of general administrative services, information management systems, and related support services.

An advanced degree in Business Administration, Public Administration, or Computer Science/Electrical Engineering (or their equivalents) is required, with a minimum of 3-5 years' experience in general administration and management in a business environment, and in project management and information systems implementation. Experience in office space planning, and building management and renovation is highly desirable, as is knowledge of academic institutions and the Federal government.

**Please send a resume  
and salary requirements to:**

**Philip M. Smith**  
**Executive Officer**  
**National Academy of Sciences**  
**2101 Constitution Avenue, N.W.**  
**Washington, D.C. 20418**

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**RIO GRANDE RESEARCH CORRIDOR**  
**CENTERS OF TECHNICAL EXCELLENCE**  
at New Mexico State University  
**ANNOUNCES**

## FACULTY SCIENTIST POSITION AVAILABILITIES

The Plant Genetic Engineering Laboratory for Desert Adaptation (PGEL) is developing an interdisciplinary program aimed at bringing novel molecular and cellular genetic technologies to bear on developing improved crop plants adapted to water, salt and temperature stresses for agricultural production in arid and semi-arid regions. We are recruiting five additional faculty scientist positions. Each faculty position will have a joint appointment with PGEL and an appropriate academic department. Successful candidates are expected to establish a productive research program in the appropriate scientific area, to collaborate with other scientists in PGEL and in the departments in addressing their respective missions, and to participate in the relevant department's student training activities at the graduate and/or undergraduate levels. Each faculty scientist position will hold either 9- or 12-month, tenure-track appointments at the assistant or associate professor ranks. Applicants must hold a Ph.D. degree in a relevant discipline and be well trained for the position to which they are applying; post-doctoral experience is preferred.

### FACULTY SCIENTIST POSITIONS

**Nucleic Acid Chemistry** — jointly appointed in the Department of Chemistry. DNA and RNA sequencing, nucleic acid code engineering to evaluate alternate forms of proteins, analysis of consensus and regulatory regions and/or structural analysis.

**Molecular Biology** — jointly appointed in the Department of Biology. Recombinant DNA technology, potentially to include development and/or utilization of microbial vectors, interaction with plant transformation systems, development of probes.

**Plant Stress Molecular Physiology** — jointly appointed in the Department of Biology. Investigation of plant stress phenomena at the molecular, cellular and/or organismal levels, aimed at achieving a better understanding of plant stress tolerance mechanisms.

**Plant Molecular Genetics** — jointly appointed in the Department of Crop and Soil Science. Plant gene identification, isolation and characterization, genetic analysis and mapping and/or gene transfer.

**Plant Somatic Cell Genetics** — jointly appointed in the department of Horticulture. Plant protoplast isolation, transformation and/or cell selection.

Salaries will be competitive, commensurate with qualifications and experience. Benefits and compensation packages are included. Interested individuals should reply with a letter indicating the position to which they are applying, names of three references, transcripts and a curriculum vitae.

**REPLY TO:** Dr. Gregory C. Phillips, Interim Director  
Plant Genetic Engineering Laboratory, Box 3GL  
New Mexico State University  
Las Cruces, New Mexico 88003

**PHONE:** (505) 646-5453

**DEADLINE:** August 15, 1984, or until suitable candidates are selected.

*AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER*



**PLANT GENETIC ENGINEERING LABORATORY**

## POSITIONS OPEN

**MOLECULAR BIOLOGISTS.** Two tenure-track assistant professorships anticipated for January (or August) 1985. In a department of 37 full-time faculty in a comprehensive university of 25,000 students. Ph.D. required and postdoctoral experience is preferred. Faculty are to maintain a vigorous research program and direct M.S. and Ph.D. students in an area of biology complementary to other faculty and present programs. **Position 1:** Expertise in recombinant DNA technology. To teach two courses per year in areas of interest, including a laboratory course in recombinant DNA techniques. **Position 2:** Expertise in plant molecular genetics and tissue culture. To teach two courses per year on topics such as tissue culture, cell biology, or cellular/molecular biology methods. For either position, apply by 15 September 1984; send curriculum vitae, statement of research goals, and names, addresses, and phone numbers of at least three references, to: **Jerrold H. Zar, Chair, Department of Biological Sciences, Northern Illinois University, DeKalb, Ill. 60115-2861.** An Equal Opportunity/Affirmative Action Employer.

Geriatric Research, Education and Clinical Center (GRECC), VAMC Durham, Center for the Study of Aging, and Department of Medicine, Duke University, seeking **PHYSICIAN-INVESTIGATOR**, to direct or participate in GRECC research program in molecular/cellular biology of neoplasia/aging interactions. Clinical background in oncology and/or geriatrics preferred. Also seeking **DIRECTOR** of Biology of Aging Program, Center for Aging. Curriculum vitae to: **Harvey Jay Cohen, M.D., Director, GRECC (182), VAMC, Durham, N.C. 27705.** Equal Opportunity Employer.

## PHYSICS ASSISTANT

Immediate placement available to the qualified candidate in Regional Radiation Therapy Center. Position responsibilities include: developing department policy/procedure, staff education, calibrating equipment, planning patient treatment.

Minimum placement requirements: B.S. in physics, preferably with 2 years of experience in medical application or degree in a related science. For further information, please contact: **Sandy Mahon, Employment Manager, Washoe Medical Center, 77 Pringle Way, Reno, Nevada 89520.** An Equal Opportunity Employer.

**POSTDOCTORAL—NEUROVASCULAR PHYSIOLOGY** position available to study the interaction of sympathetic nerves and blood vessels during physiologic and pathologic states in animals and humans. Ph.D. or M.D. U.S. citizenship required. Send curriculum vitae, statement of research interests, and two references to: **Dr. Shirley Mueller, Department of Neurology and Physiology, 1001 West 10th Street, Indianapolis, Ind. 46202.**

**POSTDOCTORAL POSITIONS (TWO) IN IMMUNOLOGY** are available; one starting fall 1984 to study the immunobiology of connective tissue and metabolic functions in cloned fibroblasts and endothelial cells and regulation of connective tissue by immune cell products.

A second position starting 1 July 1985 to study human T cell function in autoimmune diseases using T cell cloning and monoclonal antibody technology. Send curriculum vitae and names of three references to:

**Dr. Joseph Korn (Connective Tissue Investigators)  
Dr. Robert B. Clark (T Cell Function)  
Division of Rheumatic Diseases  
Department of Medicine  
University of Connecticut Medical School  
Farmington, Conn. 06032  
An Affirmative Action/Equal Opportunity Employer, M/W/H**

**POSTDOCTORAL POSITIONS.** Two or more positions available between 1 September 1984 and 1 July 1985 to study molecular aspects of pathogenesis in *E. coli*, *C. diphtheriae*, and *V. cholerae*. Projects use recombinant DNA and monoclonal antibody technologies to analyze bacterial toxins and other bacterial virulence factors. Background in microbial genetics, molecular biology, or biochemistry preferred; knowledge of bacterial pathogenesis helpful. Submit curriculum vitae and names of three references to: **Dr. Randall K. Holmes, Chairman, Department of Microbiology, c/o Personnel/Manpower Division, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Md. 20814-4799.** Curriculum vitae will not be returned. Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**PLANT POPULATION GENETICIST:** Applications are invited for a faculty position at the level of assistant, associate, or full professor, jointly appointed in the Department of Botany and the Department of Genetics at the University of Georgia. We are seeking a population geneticist to address important problems in plant biology; the research area could range from theoretical population genetics to molecular evolution, but we prefer someone with an experimental rather than a purely theoretical approach. This position is a 9-month, tenure-track appointment, budgeted 1/3 teaching and 2/3 research. This position will be housed in the Department of Botany but will participate in the teaching and research program of both departments. Training of graduate students will be a significant responsibility. Qualifications include a Ph.D. in plant population genetics or other closely allied discipline; postdoctoral experience is desirable. Applicants should submit curriculum vitae, reprints of pertinent publications, a statement of research and teaching interests, and arrange for four letters of reference to be sent to: **Dr. S. B. Jones, Chairman, Search Committee, Department of Botany, University of Georgia, Athens, Ga. 30602.** Application deadline is 26 October 1984. The search may be reopened if necessary to broaden the applicant pool. An Equal Opportunity/Affirmative Action Institution.

**POSTDOCTORAL POSITION** in immunopharmacology available immediately to study the basis of and the therapeutic potential of immunomodulation induced by antineoplastic agents. Areas under study include effects on: lymphokine production, specific cell subsets, and their function. Background in cellular immunology and familiarity with techniques in protein purification or pharmacology is desirable. Please submit curriculum vitae and names of three references to: **Dr. Enrico Mihich, Director, Grace Cancer Drug Center, Roswell Park Memorial Institute, Buffalo, N.Y. 14263.** An Equal Opportunity Employer.

**POSTDOCTORAL POSITIONS (TWO) AVAILABLE IMMEDIATELY FOR BIOCHEMIST OR PHARMACOLOGIST:** (i) To study the role of metal in the regulation and mechanism of gene expression in both prokaryotic and eukaryotic cells. (ii) To study the mechanism of action of a new antitumor drug. Experience in metalloproteins or antitumor drugs is helpful. Send curriculum vitae and three letters of recommendation to: **Professor Felicia Wu, Department of Pharmacological Sciences, Health Sciences Center, State University of New York (SUNY) Stony Brook, Stony Brook, N.Y. 11794.** SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer.

**POSTDOCTORAL POSITION** in pharmacology available immediately to study mechanisms of age-related urinary incontinence using animal models. Studies involve determining age-dependent effects on functional and biochemical responses to autonomic drugs and determining neurotransmitter levels and other measures of integrity of nerve input to the urinary bladder. Interested scientists should send curriculum vitae and names of three references to: **Dr. Lane J. Wallace, Division of Pharmacology, College of Pharmacy, The Ohio State University, Columbus, Ohio 43210.**

## POSTDOCTORAL POSITION

To study gene expression of adenovirus-2, specifically, early region IA and IB functions. Applicants with background in molecular biology/biochemistry and experience with recombinant DNA techniques, and protein biochemistry is preferred. Attractive terms. Apply to: **Dr. M. L. Harter, Department of Microbiology F669, New Jersey Medical School, 100 Bergen Street, Newark, N.J. 07103.**

**POSTDOCTORAL POSITION IN IMMUNOBIOLOGY** available for an individual to join a university-based biotechnology program dealing with domestic food animal lymphokines, including interleukins and interferon. Candidates should have a strong background in cellular immunology with experience in hybridoma technology and protein isolation and purification. Salary support available for 2 years, with possible extension for a third year. Send curriculum vitae and names and addresses of three references to:

**Dr. Frank Blecha  
Department of Anatomy and Physiology  
Veterinary Medical Center VMS 228  
Kansas State University  
Manhattan, Kans. 66506  
Telephone: 913-532-5666**

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Position in plant biology available 1 January 1985 to study chloroplast thylakoid protein phosphatase enzymes. Research could include enzymology and kinetics of purified enzymes, immunochemical studies on localization, and expression during chloroplast development. Individuals seeking this position should have biochemistry training. Send curriculum vitae and names and addresses of two references by 1 November 1984 (or until suitable candidate is found) to: **Dr. John Markwell, Department of Agricultural Biochemistry, University of Nebraska-Lincoln, Lincoln, Nebraska 68583-0718.** Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available for recent Ph.D.'s in biochemistry or pharmacology to study the role of phosphoinositides in receptor function in smooth muscle. Send curriculum vitae and names of two references to: **Dr. Ata Abdel-Latif, Cell and Molecular Biology, Medical College of Georgia, Augusta, Ga. 30912.** An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION** available in cellular and/or molecular immunology. Applicants should have experience in cell culture and hybridoma technology. Salary negotiable. Send résumé and names of three references to: **Dr. Joel W. Goodman, Department of Microbiology and Immunology, S 412, University of California, San Francisco, Calif. 94143.**

**POSTDOCTORAL POSITION** available immediately to study radiation and drug-induced DNA damage and repair in human tumor cells. Experience with one or more biophysical or biochemical techniques such as NMR spectroscopy, HPLC, gel electrophoresis, or recombinant DNA technology is required. Salary: \$16,000 to \$18,000, depending on experience. Send curriculum vitae and names of three references before 15 September 1984 to: **Dr. Kenneth Wheeler, Room 140 Nuclear Reactor Center, West 15th Street, Lawrence, Kans. 66045.** An Equal Opportunity/Affirmative Action Employer

**POSTDOCTORAL POSITION** available immediately to study peptide pathways involved in the central regulation of autonomic functions. Ph.D. applicants with research interests in neuropharmacology and neuroanatomy and experience with immunocytochemistry and retrograde tracer techniques are preferred. Position is university-supported, pays \$17,000 to \$18,000 and is for 2 years. Send curriculum vitae, summary of research interests, and three letters of reference to: **Dr. Cinda J. Helke, c/o Personnel Manpower Division, Department of Pharmacology, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Md. 20814.**

## DEPARTMENT OF PHARMACOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

**POSTDOCTORAL POSITION** available immediately for research on the adrenergic and serotonergic receptor mechanisms of coronary artery vasospasm. Experience using isolated blood vessel preparations is required. A knowledge of receptor differentiation by pharmacological analysis is desirable. Salary is in accordance with current NIH stipends and is commensurate with experience.

Send curriculum vitae and names of three references before 7 September 1984 to: **Dr. Ralph E. Purdy, Department of Pharmacology, University of California, Irvine, California 92717.** The University of California is an Affirmative Action Employer.

**POSTDOCTORAL POSITION—UNITED STATES DEPARTMENT OF AGRICULTURE (USDA).** Animal Diseases Research, Pullman, Washington, is seeking a microbiologist to conduct research in developing sub-unit, synthetic, and vector vaccines for livestock viral diseases. Must be a United States citizen. Knowledge of recombinant DNA technology and biochemistry of nucleic acids required. Salary range: \$25,489 to \$30,549. Appointment limited to 1 year but may be extended for an additional year. For application information contact: **Pat Roberts, Personnel Division, Agricultural Research Service, USDA, Room 107, Building 003, Beltsville, Maryland; telephone: 301-344-3138.** An Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available immediately to study gene amplification effects in drug-resistant and/or human neuroblastoma cells. Experience in protein chemistry and/or molecular biology required. Send résumé and names of three references to: **Dr. June L. Biedler, Sloan-Kettering Institute, 145 Boston Post Road, Rye, N.Y. 10580.** Equal Opportunity Employer, M/F/H

The National Foundation For Cancer Research  
Announces An  
**INTERNATIONAL SYMPOSIUM  
ON CANCER RESEARCH**

**Hotel Washington  
National Press Club  
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**September 17 and 18, 1984**

**Topics: Current Trends in Basic Cancer Research  
Progress of Clinical-Epidemiological Studies in  
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L. Sachs	W. Pryor
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**National Foundation For Cancer Research**  
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(301) 654-1250

## Virologist

We offer you the opportunity to join our Microbiology Research Group in the R&D Division. Here you will participate in an immunotherapy program and in monoclonal antibody research.

You will be familiar with current techniques in viral serology and tissue culture. In addition, you will be acquainted with techniques for characterization of macromolecules and nucleic acid hybridization assays. A PhD or equivalent in virology or a related field is required.

Salaries and benefits at Cutter are excellent. Join us and enjoy the convenience of our modern research facilities, directly across the Bay from San Francisco. Please submit your C.V. with salary history to **Heidi Lawton, Cutter Group, P.O. Box 1986, Berkeley, California 94701**. An equal opportunity affirmative action employer.

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## Overseas Scientific Liaison Positions

The Office of Naval Research is soliciting letters of interest and resumes from qualified candidates to fill liaison scientist positions in the branch office in London and the liaison office in Tokyo. Candidates are sought who are U.S. citizens, are currently research scientists or engineers from the academic and government sectors, and who have a Ph.D. or equivalent experience in the physical, environmental, engineering or life sciences. Knowledge of the Navy and DoD R&D activities, established contacts in the relevant foreign sector, and stature in the international R&D community are highly desirable factors as well.

Specifically, two-year terms are available for coverage of the following fields for the time noted:

**London**

Underwater acoustics (6/85-5/87)  
Information/computer sciences (6/85-5/87)  
Fluid Mechanics (9/85-8/87)  
Oceanography (esp. arctic, physical, remote sensing) (9/85-8/87)  
Materials (esp. composites or polymers) (6/86-5/88)  
Social psychology (6/86-5/88)

Mathematics (statistical or computational) (6/86-5/88)  
Electronics (esp. solid state) (6/86-5/88)

**Tokyo**

Electronics (esp. solid state) (6/85-5/87)  
Chemistry (esp. sensors or solid state) (6/85-5/87)  
Biomolecular science (6/85-5/87)  
Materials (ceramics or polymers) (8/85-7/87)  
Information/computer sciences (6/86-5/88)

Liaison scientists survey research in focused areas (and closely allied topics) to obtain information pertinent to current or potential R&D interests of the Navy. Liaison scientists interact with foreign scientists via personal contacts and/or attendance at meetings, and interpret, evaluate, and document findings for use by the Navy in its R&D efforts.

Candidates should send letters of interest and resumes to:

Ms. Debra T. Hughes, Office of Naval Research  
Code 400F (S) Arlington, Virginia 22217

Letters and resumes, which must be received by 1 October 1984, will be acknowledged in writing.

## POSITIONS OPEN

Scripps Institution of Oceanography invites applications for a **POSTDOCTORAL POSITION** in physical oceanography to participate in theoretical and observational studies of the general circulation of the North Pacific Ocean. Ph.D. in physical or mathematical sciences, with a strong graduate level background in fluid dynamics, is required. Salary is commensurate with experience, with a minimum of \$22,600 per annum. Position start date from 1 October 1984.

Please send résumé and three letters of reference to: **Professor Pearn P. Niller, Scripps Institution of Oceanography, A-030, La Jolla, Calif. 92093** by 1 September 1984.

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

### POSTDOCTORAL POSITIONS

Postdoctoral openings are available in the Department of Molecular Biology and Biochemistry at the University of California, Irvine. These positions are for 1 or 2 years under the sponsorship of the following faculty members: R. Davis: biochemical genetics of Neurospora; B. K. Burgess: biochemistry and genetics of nitrogen fixation; G. A. Granger: cell and molecular mechanisms operative in cellular immunity; B. A. Hamkalo: eukaryotic chromosome structure and function; H. Y. Fan: animal virology nucleic acid studies in murine leukemia viruses; T. E. Johnson: genetic and molecular biology of aging using *C. elegans* as model; J. E. Manning: gene sequence organization in eukaryote DNA, electron microscopy; W. M. Nunn: regulation of membrane lipid metabolism, genetic approaches; W. M. Stanley, Jr.: protein biosynthesis in eukaryotic cells; K. K. Tewari: nucleic acids of chloroplasts and other organelles; E. K. Wagner: nucleic acids and molecular biology of herpesvirus replication; R. C. Warner: mechanism of genetic recombination; and C. A. Woolfolk: general microbiology, enzymology. For further information contact or write to: **The Department of Molecular Biology and Biochemistry, University of California, Irvine, California 92717.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** in neurochemistry available immediately to study neurotransmitters used by particular cell types in the auditory nervous system. Send curriculum vitae and names of three references to: **Dr. S. J. Potashner, Department of Anatomy, University of Connecticut Health Center, Farmington, Conn. 06032.**

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**POSTDOCTORAL POSITIONS** are available for research on the biochemistry and molecular biology of the components of **CONNECTIVE TISSUES**. A background in collagen proteoglycan or glycoprotein in biochemistry with experience in cell or molecular biology is desirable. Applicants must have United States citizenship or permanent resident status. Send résumé to: **N. A. Kefalides, M.D., Ph.D., Connective Tissue Research Institute, University of Pennsylvania, University City Science Center, 3624 Market Street, Philadelphia, Pa. 19104.** *An Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** in molecular neurobiology available to study the dunce gene [see *Mol. Cell. Biol.* 4, 358 (1984)] and/or other genes involved in neurobiological processes or cyclic nucleotide metabolism. This work is primarily at the DNA/RNA level and requires experience in molecular biology, *Drosophila* genetics, or cyclic nucleotide biochemistry. Send curriculum vitae and three letters of reference to: **Ron Davis, Department of Biochemistry, Michigan State University, East Lansing, Mich. 48824.** *An Affirmative Action/Equal Opportunity Institution.*

**POSTDOCTORAL POSITION** in cell biology. Immediate opening for a well-qualified cell biologist to study the receptor-mediated endocytosis of low density lipoprotein using contemporary cell biology techniques. Research experience in membrane biology and interest in microscopic techniques desired. Send curriculum vitae and the names of references to:

**Dr. Richard G. W. Anderson  
Department of Cell Biology  
The University of Texas Southwestern Medical School  
5323 Harry Hines Boulevard  
Dallas, Texas 75235**

*The University of Texas Southwestern Medical School is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION** (possibly two) available for studies on the mechanism of interferon action. Project involves studies on interferon receptors, induction of specific cellular genes by interferons and its regulation, and so forth, in relation to the antiviral (and various other) effect(s) of interferons. Ph.D. in biochemistry or related subjects. Some experience with molecular biology techniques is desirable. Send résumé and names of three references with telephone numbers to: **Dr. Sohan L. Gupta, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, N.Y. 10021.**

**POSTDOCTORAL POSITION** available immediately on hypertension training grant and hypertension SCOR to study cell membrane receptor and steroid-mediated regulation of ion transport. Experience with cell culture, receptor binding, purification of proteins and/or steroids, and ion transport studies is desirable but not essential. Send curriculum vitae and names of three references to: **D. Fanestil, M-023B, University of California-San Diego, La Jolla, California 92093.**

### UNIVERSITY OF CALIFORNIA, IRVINE POSTDOCTORAL RESEARCH

Postdoctoral position available for research on the neurobiology of the striatum. Research includes: (i) quantitative autoradiography/image analysis of dopamine receptor distribution, (ii) neurochemical markers of striatal heterogeneities, and (iii) response of striatal neurons to denervation. Applicant with background in neurochemistry/pharmacology or anatomy should send résumé and names and addresses of three references to: **Dr. John F. Marshall, Department of Psychobiology, University of California, Irvine, Calif. 92717.**

#### UCI

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### POSTDOCTORAL RESEARCH ASSOCIATE CENTRAL AUTONOMIC MECHANISMS

Position available (after 1 September 1984) for electrophysiological studies on the role of the CNS in the genesis and control of sympathetic nerve discharge. Applicants must have previous training in neurophysiology and/or neuropharmacology, preferably at the single cell level. Send curriculum vitae and names of three references to:

**Dr. Gerard L. Gebber  
Department of Pharmacology and Toxicology  
Michigan State University  
East Lansing, Michigan 48824**

*An Equal Opportunity/Affirmative Action Employer*

**POSTDOCTORAL RESEARCH ASSOCIATE** position available for individual with background in molecular biology and biochemistry. Research project focuses on regulation of protein synthesis during embryogenesis of an insect endoparasitoid. Previous experience in insect biochemistry and physiology and training in tissue culture desirable. This is an Agricultural Research Service (ARS), United States Department of Agriculture (USDA) position, GS-11, Salary: \$25,366, for one year, with possibility of renewal for a second year. United States citizenship required. Starting date must be before 31 December 1984. Send résumé to: **Dr. Stephen Ferkovich, Insect Attractants, Behavior and Basic Biology Research Laboratory, USDA, ARS, P.O. Box 14565, Gainesville, Fla. 32604.**

**POSTDOCTORAL RESEARCH ASSOCIATE** to investigate kinetics and mechanism of enzymatic reactions [see *J. Biol. Chem.* 258, 909 (1983)]. Applications are invited from individuals with experience in biochemistry and/or organic chemistry. Position available anytime within the next 3 months. Salary based on qualifications. Send résumé and three letters of recommendation to: **Dr. R. M. Pollack, Department of Chemistry, University of Maryland Baltimore County (UMBC), Baltimore, Md. 21228.** *The University encourages qualified women and minorities to apply. UMBC is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL RESEARCH ASSOCIATE**, Analytical Chemistry. Development of homogeneous fluoroimmunoassay techniques. Familiarity with analysis of clinical samples desirable. Start September 1984, salary \$15,000 to \$17,000 per year. Send curriculum vitae, graduate transcripts, and arrange for three letters of recommendation to be sent to: **Dr. L. B. McGown, Department of Chemistry, Oklahoma State University, Stillwater, Okla. 74078** by 31 August 1984. *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH ASSOCIATE** in vascular physiology to join investigations of animal and human blood vessel reactivity utilizing in vitro and in vivo techniques. Present studies involve adrenergic, cholinergic, and peptidergic neuroeffector mechanisms, interactions of platelets with blood vessel smooth muscle, neural, and endothelial components, and influence of hemodynamic variables on coronary and digital arterial spasm. Must have Ph.D. or M.D. Starting September 1984. *We are an Equal Opportunity Employer, M/F.* Curriculum vitae to: **Richard Cohen, M.D., University Hospital, Boston University Medical Center, 75 East Newton Street, Boston, Mass. 02118.**

**POSTDOCTORAL RESEARCH ASSOCIATE POSITION** available immediately to study visual and oculomotor functions (in alert animals). Interested individuals should have some experience with either chronic animals or single cell recording. Interest in auditory physiology would be an asset. Current projects in laboratory focus on superior colliculus. Applications of chronic single cell techniques to other structures are also possible. Competitive salary. Application deadline is 30 September 1984. Submit letter of application, curriculum vitae, and three references to: **Dr. Carol K. Peck, School of Optometry, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, Mo. 63121.** *The University of Missouri is an Equal Employment and Education Opportunity Institution.*

**POSTDOCTORAL RESEARCH ASSOCIATE**—Position available immediately for Ph.D. in biochemistry or life science to study polyamine regulation of differentiation and gene expression in the early embryonic development of insects using molecular biological and recombinant DNA approaches. Salary: \$20,500 per 12 months. Funded for 24 months. Send curriculum vitae and three letters of reference by 15 September 1984 to: **Dr. A. E. Oleson, Department of Biochemistry, North Dakota State University, Fargo, N.D. 58105.** *An Equal Opportunity Employer.*

**POSTDOCTORAL RESEARCH POSITIONS** available in **NUTRITIONAL SCIENCES**. Individuals with M.D. and/or Ph.D. with interest in either biochemical or clinical aspects of nutrition are welcome to apply. Placement will be with faculty members most suitable to applicants interest. Letters of enquiry and curriculum vitae should be sent to: **Chairman, Department of Nutritional Sciences, Fitzgerald Building, University of Toronto, Toronto, Ontario, Canada M5S 1A8.**

**POSTDOCTORAL RESEARCH POSITIONS:** Associate positions are available to work on studies concerning the effects of retroviral- and tumor-associated proteins on immune function. Candidates should have a strong background in immunology, cellular or molecular biology, or biochemistry. Send résumé and three letters of reference to:

**Dr. George J. Cianciolo and  
Dr. Ralph Snyderman  
Box 3892, Department of Medicine  
Duke University Medical Center  
Durham, N.C. 27710**

**PROJECT ASSOCIATE—POLYMER PHYSICS.** Full time (minimum 40 hours per week) project associate to participate in studies of multiphase polymers using small- and wide-angle x-ray scattering, differential scanning calorimetry, Fourier transform infrared spectroscopy, and dielectric and dynamic mechanical testing. The project associate will design experiments, supervise installation, operation, and maintenance of the above instruments, do computer interfacing and programming, perform data analysis, and help to supervise graduate students. Applicants must hold a Ph.D. in biophysics with 3 years of postdoctoral research experience in polymer physics, and must have experience operating the instruments mentioned above. The initial salary is \$18,200 on an annual (12-month) basis. Contact: **Eileen Breitweiser, Wisconsin Job Service, 206 North Broom Street, Madison, Wis. 53703.** *An Equal Opportunity Employer.* An employer paid ad.

Applications are invited for a **RESEARCH ASSOCIATE** position for a person with experience in cell culture, immunoassays, and computer programming. Experience with domestic species and chromatography is preferred but not required. A Ph.D. in biochemistry or a related field is required. Salary ranges from \$14,000 to \$18,000 with university benefits. Please send résumés to: **Dr. James J. Ireland, Associate Professor, Department of Animal Science, 230 Anthony Hall, Michigan State University, East Lansing, Mich. 48824.**

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## RESEARCH SCIENTISTS

Established, rapidly growing research institute seeks M.S. Biologists and Biochemists; D.V.M.'s; and Ph.D. Cell Biologists, Oncologists, Pharmacologists, and Physical Pharmacists for research in the following areas:

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- PURIFICATION OF PROTEINS AND BINDING OF LIGANDS TO PROTEINS
- PHYSICAL PHARMACY, CONTROLLED-RELEASE DRUG DELIVERY

Send resume, salary requirements, and, if available, letters of recommendation and college transcripts to:



Ms. D. D. Johnson  
Personnel Administrator  
Southern Research Institute  
P.O. Box 55305  
Birmingham, Alabama 35255-5305

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## INHALATION TOXICOLOGIST

The Toxicology Research and Testing Program of the National Institute of Environmental Health Sciences, Research Triangle Park, NC, has a permanent position for an Inhalation Toxicologist with a salary range of \$42,928 to \$55,807.

*The successful candidate will be expected to:*

1. Head the Inhalation Toxicology Section of the Systemic Toxicology Branch, Toxicology Research and Testing Program, NIEHS.
2. Design studies and assist the Program in the design of studies to evaluate the toxic potential of chemicals in small laboratory animals. Chemicals are selected on the basis of their public and industrial health significance and are chemicals to which individuals would be expected to be exposed by inhalation.
3. Develop and validate procedures for studying the inhalation toxicology of chemicals.

*Candidates are required to have the following:*

1. Ph.D. degree or its equivalent in toxicology, pharmacology, physiology or other allied subject where training was focused on in vivo mammalian toxicology.
2. Six or more years of postdoctoral research experience in inhalation toxicology.
3. Knowledge of pulmonary physiology, mammalian respiratory mechanics, and the general methods and principles of inhalation toxicology.
4. Ability to communicate effectively both orally and in writing.
5. Relevant publications in scientific journals.

U.S. citizenship required. Applicants must be found to be eligible on a Civil Service Register.

A curriculum vitae and names of three persons we can contact for references should be sent to NIEHS Personnel Office, P.O. Box 12233, Research Triangle Park, NC 27709 ATTN: N. Lou Rozier (1-01). Further information can be obtained from Ms. Rozier by calling 919 541-7513. Applications must be received no later than September 17, 1984.

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## Biotechnology

ANGENICS, INC. is a rapidly growing company developing analytical systems for agricultural and medical applications. Our emphasis is on the use of novel monoclonal antibody-based systems and other biochemical methods for rapid and simple diagnosis.

### Biochemist, Ph.D.

We have an immediate opening for a Ph.D. who would like to apply creative talents on research and development projects directed toward the generation of new products. Applicants should have a Ph.D. in biochemistry, molecular immunology, biology or microbiology with at least two years of postdoctoral experience. Responsibilities will include management of an interdisciplinary research and development team.

ANGENICS offers a competitive salary and benefits package and the opportunity to interact with stimulating colleagues and consultants while participating in the success of a young company.

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## POSITIONS OPEN

### POSTDOCTORAL RESEARCHER VASCULAR SMOOTH MUSCLE PHYSIOLOGY

Immediate opening for a biophysically oriented Ph.D. to join a multidisciplinary group studying the myogenic, mechanical, electrophysiological, and other properties of brain and coronary arteries. A challenging opportunity for candidate interested in the areas of hypertension, stroke, and vasospasm. Stipend dependent on qualifications. Send résumé and names of three references to: **Dr. William Halpern, University of Vermont, College of Medicine, Department of Physiology and Biophysics, Burlington, Vt. 05405. An Affirmative Action Employer.**

### PROTEIN BIOCHEMIST

Assistant Professor, Department of Pathobiology with potential joint appointment in Department of Biochemistry, University of Washington, Seattle. Seeking applicant with strong academic credentials to join biomedical research team involved with the biochemical, genetic, and immunochemical characterization of relevant proteins of microbial and protozoal pathogens. Preference to individuals with sequencing and/or peptide synthesis experience. Well-equipped laboratory, start-up funds, and competitive salary available. Position available by October 1984 or thereafter. Send curriculum vitae, bibliography, and three references to: **Dr. Thomas M. Buchanan, Immunology Research Laboratory, 11th Floor, Pacific Medical Center, 1200 12th Avenue South, Seattle, Wash. 98144. The University of Washington is an Affirmative Action/Equal Opportunity Employer.**

### THE UNIVERSITY OF SYDNEY RESEARCH APPOINTMENT IN DEVELOPMENTAL NEUROBIOLOGY (Reference Number 28/01) NEUROBIOLOGY RESEARCH CENTRE

The Australian Government has established this Centre under the directorship of Professor M. R. Bennett, F.A.A. Research projects are aimed at elucidating the mechanisms which govern the development of motoneurons and retinal ganglion cells, together with their synaptic connections. Applicants are now invited for the position of senior protein biochemist at the research fellow or postdoctoral level.

The successful applicant will be required to play a leading role in a project which is aimed at the isolation and purification of trophic factors that support neurones. Applicants should therefore have expertise in all aspects of protein separation and purification. Experience in molecular biology would be an advantage since the project will interface with our Molecular Biology Unit.

Salary range: research fellow: A\$24,840 to A\$32,634 per annum; postdoctoral fellow: A\$21,411 to \$23,903 per annum.

This position is available for the period to December 1987.

Applications, quoting reference number, including detailed curriculum vitae, bibliography (and three selected reprints), together with the names and addresses of three referees, should be sent to: **The Registrar, University of Sydney, N.S.W. 2006, Australia, by 31 August 1984.**

**RESEARCH ASSOCIATE** position available immediately for Ph.D. in molecular biology/biochemistry. Research on gene expression during the development and differentiation of insect spermatzoa. Experience in molecular cloning/plasmid construction essential; background in cell culture and protein chemistry desirable. Send statement of research interests, curriculum vitae, and names and addresses of three references to: **Dr. S. G. Miller, Department of Entomology and Nematology, 3103 McCarty Hall, University of Florida, Gainesville, Florida 32611.**

**RESEARCH ASSOCIATE OR POSTDOCTORAL POSITION—BIOCHEMICAL PHARMACOLOGY.** Position available immediately, mechanism and metabolism studies of nucleoside-phospholipid conjugates and the related anticancer agents. Applicants should have Ph.D. in biochemistry or pharmacology with background in nucleoside, nucleotide, and phospholipid biochemistry desired. Salary range \$16,000 to \$22,000 per year for up to two years. Send curriculum vitae and two references to: **Dr. Chung I. Hong, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, N.Y. 14263. An Equal Opportunity Employer.**

## POSITIONS OPEN

### RECOMBINANT DNA TECHNOLOGIST

Immediate opening in molecular genetics research laboratory for individual with B.S. or M.S. degree in biochemistry, plant pathology, microbiology, or genetics. Full-time, permanent position. Responsibilities include: induction, selection, and maintenance of mutant bacteria and fungi; isolation and manipulation of nucleic acids; and performing pathogenicity assays on plants. Salary commensurate with experience in bacterial or fungal genetics, DNA cloning, and macromolecule purifications. Send current résumé, transcripts, and two letters of reference to: **Dr. Dean W. Gabriel, Department of Plant Pathology, University of Florida, Gainesville, Fla. 32611. An Affirmative Action/Equal Opportunity Employer.**

**RESEARCH ANIMAL SCIENTIST or RESEARCH PHYSIOLOGIST (ANIMAL),** at GS-11 (\$25,489), GS-12 (\$30,549), or GM-13 (\$36,327), grade based on qualifications. One federal career civil service position with United States Department of Agriculture (USDA)—Agricultural Research Service (ARS) in El Reno, Oklahoma, to conduct research to characterize the physiological, controls which regulate (i) gastrointestinal motility, (ii) nutrient absorption, and (iii) nutrient partitioning utilizing the bovine and opine as experimental units. Ph.D. or equivalent education/experience is required with strong knowledge of mammalian physiology and endocrinology. Candidate must be United States citizen. *Equal Opportunity Employer.* For application procedures, contact: **L. G. Burkes, SR-101-84, USDA-ARS-PD-POB; Southern Region Section; Building 417, BARC-East; Beltsville, Md. 20705. Telephone: 301-344-1508.**

**RESEARCH ASSOCIATE POSITION** available immediately for the ultrastructural analysis of human hematopoiesis. Ph.D. in cell biology with experience in quantitative electron microscopy and immunocytochemistry is required. Candidate with additional background in areas of cell culture, hematopoiesis and flow cytometry will be given preference. Salary negotiable. Send curriculum vitae and list of three references to:

**Dr. R. Hoffman  
Department of Medicine  
Hematology/Oncology  
Clinical Building, Room 379  
541 Clinical Drive  
Indianapolis, Ind. 46223  
Telephone: 317-264-3580**

**RESEARCH ENTOMOLOGIST** at GS-11 (\$25,489) or GS-12 (\$30,549), grade based on qualifications. One federal career civil service position with United States Department of Agriculture (USDA)—Agricultural Research Service (ARS), Screwworm Research, in Tuxtla Gutierrez, Chiapas, Mexico, to conduct basic research on the physiology and nutrition of screwworm larvae and adults. Research objectives include determination of the effect of nutrition and mass-rearing on the basic physiology and biological activity of screwworm eradication program. Strong background in insect physiology and nutrition preferred. Ph.D. or equivalent education/experience required. Applicants must have some knowledge of Spanish language. Candidate must be U.S. citizen. *Equal Opportunity Employer.* For application procedures, contact: **L. G. Burkes, SR-103-84; USDA-ARS-PD-POB; Southern Region Section; Building 417, BARC-East; Beltsville, Md. 20705. Telephone: 301-344-1508.**

### RESEARCH SCIENTIST

The Department of Surgery, Division of Plastic Surgery, University of North Carolina School of Medicine, is seeking a research scientist with expertise in molecular genetics, DNA cloning, messenger RNA quantitation, and animal cell culture experience. A degree in microbiology/virology (Ph.D.) is required, as is a minimum of 4 years of experience in molecular genetics. It is expected that the research pursued would relate to current studies in the department concerning wound healing in skin, tendon, and bone. A rank of assistant professor is offered. Collaboration with other disciplines is expected as is the development of independent grant support in the future. Teaching duties include graduate students in microbiology/virology as well as instruction of selected surgical residents in training. Inquiries should be directed to: **Albert Banes, Ph.D., University of North Carolina at Chapel Hill, Dental Research Center Building, 210-H, Chapel Hill, N.C., 27514. Minority and female applicants are encouraged to apply. The University of North Carolina is an Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

**PROVOST:** The Massachusetts General Hospital Institute of Health Professions—To serve as chief administrative officer of a multidisciplinary, degree-granting, academic unit within a major teaching hospital. Division programs currently or soon will include: Master's degrees in dietetics, nursing, physical therapy, and speech-language pathology, and a graduate certificate program in social work. Applicants should hold an earned doctorate, have experience in educational administration, be strongly committed to interdisciplinary education, and be able to provide creative leadership in further development of academic programs. Experience in health care and in education of health professionals strongly preferred. Immediate opening: review of applications will begin 1 August 1984. Inquiries, nominations, and applications with current résumé and names of three professional references should be sent to: **Henry J. Mankin, M.D., Chairperson, Provost Search Committee, Massachusetts General Hospital, Boston, Mass. 02114.**

*Affirmative Action/Equal Opportunity Employer*

**RESEARCH ASSOCIATES**—Positions available immediately: **Biochemist**—Research involves study of novel human glycosyltransferases. Background in glycoproteins, glycolipids and enzymology is desired. **Chemist**—synthesis of oligosaccharides. Background in synthetic carbohydrate chemistry desired. HPLC experience helpful in both positions. Send curriculum vitae and two references to: **Dr. Khushi L. Matta, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, N.Y. 14263. An Equal Opportunity/Affirmative Action Employer.**

### RESEARCH ASSOCIATE

Postdoctoral fellow position in biochemical pharmacology (Ph.D. or M.D.) available 1 July 1984 for study of biochemical mechanism of toxicity of nucleoside analogs (F-ara-A). Applicants with a strong background in biochemistry, pharmacology, or molecular biology are encouraged to apply. The work will include enzyme purification, inhibition and isolation of products of enzymatic inhibition. Experiments will be performed in well-equipped, well-funded laboratory with NIH and/or ACS grants. Salary commensurate with background and experience. Send curriculum vitae and three letters of recommendation to: **Vassilios I. Avramis, Ph.D., Division of Hematology/Oncology, CHILDRENS HOSPITAL OF LOS ANGELES, 4650 Sunset Boulevard, Los Angeles, Calif. 90027. Equal Opportunity Employer, M/F/H.**

### RESEARCH ASSOCIATE

Position available in multi-disciplinary group to conduct research in the application of organic/organometallic chemistry to the development of new radio-diagnostic agents for nuclear medicine. Current activities involve the synthesis of steroid hormone agonists/antagonist analogs, preparation of radiolabeled derivatives, and in vivo evaluation of labeled and unlabeled products. Duties include the design and execution of experiments in any of the above activities, preparation of reports and manuscripts describing the work done, and submission of proposals for future research. Must have Ph.D. in chemistry, biochemistry, pharmacology, or related field. Experience with radionuclides desirable. Salary commensurate with experience. Send résumé and names of references to:

**Dr. Robert N. Hanson  
Section of Medicinal Chemistry  
College of Pharmacy  
Northeastern University  
Boston, Mass. 02115**

*Northeastern is an Equal Opportunity/Affirmative Action, Title IX University.*

**RESEARCH ASSOCIATE (POSTDOCTORAL)—PLANT MOLECULAR BIOLOGY.** Plant Molecular Genetics: research associate postdoctoral position available 15 September 1984. Work on the construction of a restriction fragment length polymorphism based linkage map of the barley genome. Project includes direct interaction with barley breeding program with complete access to diverse array of well-characterized genetic stocks. Requirements: Ph.D., experience with Southern blot analysis, preferably with eukaryotic genomes, M13, vector construction. Experience with plants desired, not required. Salary: \$18,000 starting plus fringes plus travel plus lab technician. Second year funded through USDA competitive research grant. Send curriculum vitae and names of three referees to: **Dr. Tom Blake, Department of Plant and Soil Science, Montana State University, Bozeman, Mont. 59717-0002.**

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## POSTDOCTORAL SCIENTISTS

Three postdoctoral fellows positions are immediately available at our headquarters facility in Radnor, PA, an attractive Main Line suburb of Philadelphia. Specific areas of study and investigation are as follows:

**MEDICINAL CHEMISTRY**—The successful candidate must have a Ph.D. degree in organic or medicinal chemistry and will be expected to pursue a synthetic research project in the area of B-lactam antibiotics.

**DRUG METABOLISM**—Ph.D. in Biochemistry to investigate conjugation mechanisms (Phase II metabolism) by *in vivo* and *in vitro* techniques. This is the continuation of a successful research project and the selected candidate is expected to make innovative contributions.

**EXPERIMENTAL THERAPEUTICS**—Ph.D. in Physiology/Biophysics or Pharmacology to study cellular basis for drug action in heart. The candidate will take part in an ongoing research effort examining drug interactions with cardiac ion channels using microelectrode and voltage clamp techniques.

If interested, send resume including salary requirements in strict confidence to Personnel Department,

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## SCIENCE

*News Department Reprint Series*

### Catalysis

"There is no area in chemistry today more exciting than catalysis." [George Pimentel, chairman of the National Academy of Sciences/National Research Council Committee to Survey Opportunities in the Chemical Sciences]

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This collection of recent articles from *Science* by Thomas Maugh II is now available for use by professionals, teachers, researchers, and anyone interested in this field.

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Write to AAAS, Dept. CAT, 1515 Massachusetts Ave., N.W., Washington, D.C. 20005.

## POSITIONS OPEN

### RESEARCH ASSOCIATE

A postdoctoral research associate position is available to study the mechanism of action of interferon, either at the level of interferon/receptor interaction or at the level of the function of proteins induced by interferon. The position is available for 2 years with possibility of renewal. Salary is commensurate with experience. Send curriculum vitae and names of references to: **Dr. Corrado Baglioni, Biology Room 126, State University of New York at Albany (SUNY), 1400 Washington Avenue, Albany, N.Y. 12222. Telephone: 518-457-4872. SUNY at Albany is an Equal Opportunity/Affirmative Action Employer. Applications from females, minorities, and handicapped are especially welcome.**

### RESEARCH POSITION

Ph.D. or M.D. with research experience in cardiovascular physiology wanted to work in a research laboratory in a university-affiliated, suburban New York hospital. This is an opportunity for an independent and motivated scientist with good communication skills to work in conjunction with an active clinical cardiovascular team, to participate in ongoing research, and to initiate new avenue of investigation. The hospital, located on Long Island, houses extensive research facilities. A research building is under construction to provide support and core services as well as an interchange of ideas between investigators in different fields. The research laboratory is fully equipped and staffed. This is a stimulating work environment with an excellent and fully funded salary. The successful applicant will be expected to apply for grants. Experience beyond the doctoral level is required and a full benefits package is provided. A letter, including a summary of research goals, and a résumé should be submitted to: **Dr. Roy Nelson, Division of Cardiovascular Surgery, North Shore University Hospital, Manhasset, New York 11030.**

**RESEARCH INSTRUCTOR.** Ph.D. in Biochemistry plus 5 years of postdoctoral research. To prepare and identify recombinant plasmids specific for steroid hydroxylases and to use these probes to identify and characterize genes encoding these enzymes. To instruct graduate and postgraduate students in the principles and techniques of molecular cloning and supervise technicians, graduate students, and postdoctoral fellows. Experience should include molecular cloning of cDNA molecules, preparation and maintenance of colonies containing recombinant plasmids, in vitro translation, in vitro transcription, DNA sequencing, and P-3 level containment of recombinant DNA. Background in study of heme proteins desirable. \$26,076 per year. Apply at: **The Texas Employment Commission, Dallas, Texas** or send résumé to: **The Texas Employment Commission, Texas Employment Commission Building, Austin, Texas 78778, Job Order Number 3474899. Ad paid by an Equal Employment Opportunity Employer.**

### SENIOR RESEARCH ASSOCIATE IN PHYSICAL OCEANOGRAPHY

Available for research in air-sea and air-sea-ice interactions as they relate to variations in climate and fish stock recruitment. Renewable 1-year appointment. Salary negotiable based on experience. Announcement closes 1 September 1984. Applicants should send a résumé and three references to:

**Dr. William Fox  
Chairman, Search Committee  
University of Miami—CIMAS  
4600 Rickenbacker Causeway  
Miami, Fla. 33149  
Telephone: 305-361-4185**

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**SENIOR SCIENTIST, GYNECOLOGIC CANCER RESEARCH** (Ph.D. or M.D.)—Memorial Sloan-Kettering Cancer Center is establishing the Avon Chair for research in a field related to or applicable to the problems of gynecologic cancers. The scientist will direct a laboratory-based research program and need not be a clinician in gynecologic cancer. The incumbent of the Avon Chair, whose research will address problems related to gynecologic malignancies, will interact with other research scientists and with the Division of Gynecology of the Department of Surgery. Other responsibilities will include training of postdoctoral and research fellows. Salary to be negotiated. Please send curriculum vitae and biography to: **Search Committee, c/o John L. Lewis, Jr., M.D., Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, N.Y. 10021. An Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

**RESEARCH PATHOLOGIST.** Position available with Campbell Soup Company at North Carolina State University starting 1 October 1984. Must have Ph.D. in plant pathology and 2 years minimum experience in vegetable disease research. Emphasis will be on ecology and control of *Sclerotium rolfsii* on carrot. Candidates must demonstrate ability to provide leadership and conduct innovative research. Salary range \$28,500 to \$30,800. Send curriculum vitae, publication list, and names of three references by 1 September 1984 to: **Dr. M. A. Stevens, Route 1 Box 1314, Davis, Calif. 95616; telephone: 916-753-2116.**

**RESEARCHER**—To conduct studies of brain metabolism and injured brain tissue. Require Ph.D. in neurobiology and minimum 2 years of experience. Full time position. \$21,780.00 per year. Send résumé to: **SCIENCE, Box 190.**

**SENIOR POSTDOCTORAL RESEARCHER** to work on biochemistry and molecular biology of the glucocorticoid receptor. Experience in receptor research and recombinant techniques preferred. Some postdoctoral experience useful. Salary negotiable. Send résumé and names of three references to: **Dr. Gerald Litwack, Fels Research Institute, Temple University School of Medicine, 3420 North Broad Street, Philadelphia, Pa. 19140. Equal Opportunity Employer.**

**NATIONAL OPTICAL ASTRONOMY OBSERVATORIES (NOAO), SOLAR PHYSICIST**—The NOAO announces the opening of one or two tenure-track positions at the National Solar Observatory (NSO). The positions may be based in Tucson, Arizona, or in Sunspot, New Mexico. This is an exceptional opportunity to participate in the development of a vigorous scientific program of the NSO in such areas of concentration as solar seismology, solar magnetic field studies, solar activity, structure and dynamics of the solar atmosphere, and solar/stellar physics. Opportunities also exist to initiate or participate in the development of innovative instrumentation aimed at expanding the research capabilities available to United States astronomy for frontier research on the sun in such areas as high precision velocity measurements, high resolution imaging, and Stokes polarimetry. Individuals who believe that their accomplishments, personality, and initiative match the high standards and opportunities presented here are invited to forward their application, curriculum vitae, and the names of three references to: **Judith Ruffino, Personnel Manager, NOAO, P.O. Box 26732, Tucson, Ariz. 85726. An Equal Opportunity/Affirmative Action Employer.**

### STAFF SCIENTIST

\$1986 to \$4767

**Lawrence Berkeley Laboratory (LBL)**

The Electronic Materials Program of LBL's Center for Advanced Materials is seeking a staff scientist to conduct research in the area of optical and electrical properties of III-V compound semiconductors. Research focuses on the development and application of advanced characterization techniques for the study of GaAs single crystals and special multilayer structures which will be grown at the center. Project involves collaboration with other staff scientists and supervision of graduate students. Requires several years of experience in the field of compound semiconductors; experience in the characterization of III-V semiconductors using optical and electrical techniques; strong theoretical knowledge coupled to the interpretation of experimental results and experience in graduate student supervision. Ph.D. in solid state or semiconductor physics strongly preferred. Please send inquiries with two professional résumés and other appropriate material to: **Lawrence Berkeley Laboratory, Employment Office, 90-1042, One Cyclotron Road, Berkeley, Calif. 94720. Please specify Job Number A-3031. An Equal Opportunity Employer, M/F/H.**

## ASSISTANTSHIPS

**POSITION OPEN: GRADUATE RESEARCH ASSISTANTSHIP** for 4 years at \$8,400 per year in **MOLECULAR CLONING AND INSECT BIOCHEMISTRY** leading to Ph.D. in entomology, available immediately. Candidates with M.S. in molecular biology, biochemistry, or entomology send résumé and three letters of recommendation to: **Dr. Richard H. Baker, Florida Medical Entomology Laboratory, University of Florida, 200 9th Street S.E., Vero Beach, Florida 32962.**

## EXCHANGE PROGRAM

The Committee on Scholarly Communication with the People's Republic of China (CSCPRC) announces a **NATIONAL PROGRAM OF SCHOLARLY EXCHANGES** with the People's Republic of China. This program offers support for visits to China by scholars and advanced graduate students in the sciences, engineering, social sciences, and humanities. The Graduate and Research Programs support American scholarly interests by providing opportunities for study and research at Chinese universities and research institutes. The Visiting Scholar Exchange Program, which supports both Chinese and American scholars, is designed to enhance intellectual dialogue and make significant contributions to academic exchanges in a given discipline. Application is open to United States citizens and permanent residents regardless of national origin, sex, or religious affiliation. Funding is provided by the United States Information Agency, Department of Education, National Endowment for the Humanities, National Science Foundation, and the Starr and Ford Foundations. Address requests to: **CSCPRC, National Academy of Sciences, 2101 Constitution Avenue, NW, Washington, D.C. 20418.**

Postmark/mailling deadline for application to Graduate and Research Programs is 6 October 1984. Deadline for application to the Visiting Scholar Exchange Program is 29 October 1984.

## TRAINING PROGRAM

### POSTDOCTORAL TRAINING PROGRAM

The Research Division of The University of Texas System Cancer Center at Smithville has been awarded a postdoctoral training grant from National Cancer Institute in the molecular and cellular mechanisms of carcinogenesis. Trainees must have completed a Ph.D., M.D., or D.V.M. degree and must be U.S. citizens or permanent residents. For further information and application forms, write: **Dr. Thomas J. Slaga, Director, University of Texas System Cancer Center, Science Park-Research Division, P.O. Box 389, Smithville, Texas 78957. An Equal Opportunity/Affirmative Action Employer.**

## FELLOWSHIP

**THE TERRY FOX LABORATORY  
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RESEARCH CENTRE  
VANCOUVER, CANADA**

**POSTDOCTORAL FELLOWSHIPS**  
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M.D.'s or Ph.D.'s

A multidisciplinary cancer research group seeks applicants for two postdoctoral positions to work on the isolation and characterization of growth factor receptors, differentiation antigens and oncogenes involved in hemopoiesis and lymphopoiesis. Applicants should have a background in biochemistry or molecular biology. Duration of support will be for 2 or 3 years depending on previous training and goals. Yearly stipend will be approximately \$520,000 plus \$2,000 for each additional year of training post-M.D. or Ph.D.

Applications should be sent with curriculum vitae, copies of university transcripts and courses taken, along with the names of three references to:

**Allen E. Eaves, M.D., Ph.D., Director  
Terry Fox Laboratory, British Columbia  
Cancer Research Centre  
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## **JOB AVAILABILITY IN SAUDI ARABIA**

**THE KINGDOM OF SAUDI ARABIA ANNOUNCES THE FOLLOWING AVAILABLE POSITIONS:**

### **1. BIOMEDICAL EQUIPMENT SPECIALIST**

**Qualifications:** University degree (preferably postgraduate degree) in Biomedical, Electronic or Electrical Engineering.

**Experience:** Minimum of eight years in a supervisory post in a hospital or other health care institution or administration, must have been working on planning, organization or coordination in activities relating to biomedical equipment, computers and communications systems, and, more particularly, capable of giving advice in relation to the selection of biomedical equipment, and development and administration of programs of biomedical equipment operation and maintenance. **FLUENCY IN ENGLISH IS A REQUIREMENT AND FLUENCY IN ARABIC PREFERRED.**

### **2. CONSULTANT ON EMPLOYMENT AND HUMAN RESOURCES**

**Qualifications:** University degree in Personnel Management or Business Administration.

**Experience:** Minimum of 10 years experience in Personnel Administration, including four years experience in a senior supervisory position in the personnel section of a hospital or other medical institution. The required experience must include setting of employment policies advising on methods of improvement of personnel performance in medical field, drafting and study of personnel regulations and type organizations. **FLUENCY IN ENGLISH IS A REQUIREMENT AND FLUENCY IN ARABIC PREFERRED.**

### **3. CONSULTANT ON MEDICAL SUPPLY AND PROCUREMENT**

**Qualifications:** University degree in Business Administration. Must have studied purchasing and procurements within the curriculum.

**Experience:** Minimum of 10 years experience in medical purchasing and procurement management including six years experience at the managerial level. The required experience should also include working on procurement planning, inventory taking and control, design of methods and standards on warehousing, particularly with regard to safety.

### **4. PUBLIC HEALTH SPECIALIST**

**Qualifications:** Graduate of an accredited medical school with a Masters of Public Health in Public Health/Preventive Medicine.

**Experience:** Minimum of 10 years experience as Preventive Medicine/Community Medicine Specialist. Experience should include administration of environmental sanitation programs (pest and vector control, disposal of waste, prevention of environmental diseases, etc.) and improvement of public utilities services (water and food supply, sewage, etc.). **FLUENCY IN ARABIC PREFERRED.**

### **5. CONSULTANT ON MEDICAL EDUCATION**

**Qualifications:** Masters Degree in Health Care/Hospital Administration, have studied about medical training programs and hospital accreditation rules within the curriculum.

**Experience:** Minimum experience of 10 years in the medical field which should include five years in curriculum design for programs of graduates and continuing medical education, their implementation and organization of training courses. **FLUENCY IN ENGLISH IS A REQUIREMENT AND FLUENCY IN ARABIC PREFERRED.**

### **6. HOSPITAL ADMINISTRATION AND MANAGEMENT CONSULTANT**

**Qualifications:** Masters Degree in Health Care/Hospital Administration, fellowship of relevant professional board or institute, and knowledge of hospital accreditation rules.

**Experience:** Minimum experience of 10 years at the top managerial level in the field of medical planning in a hospital or other health care institution or administration. Such experience should include policies design and accreditation of competence of medical services and health care. **FLUENCY IN ENGLISH IS A REQUIREMENT AND FLUENCY IN ARABIC PREFERRED.**

### **7. FINANCIAL ANALYSIS AND BUDGETING CONSULTANT**

**Qualifications:** Degree in Accounting or Financial Management (preferably Masters Degree) fellowship of a relevant professional institute.

**Experience:** Minimum experience of 10 years, including five years as auditor in computerized financial systems, and two years in a senior supervisory position. Experience should also include preparation and audit of budget forecasts, cost accounting and financial analysis. **FLUENCY IN ENGLISH IS A REQUIREMENT AND FLUENCY IN ARABIC PREFERRED.**

### **8. MEDICAL RECORDS CONSULTANT**

**Qualifications:** University degree in an appropriate specialty, graduate of an approved school of medical records administration.

**Experience:** Minimum experience of eight years in medical records administration including five years in a supervisory position dealing with development of medical records systems in a university hospital or medical research center. **FLUENCY IN ENGLISH IS A REQUIREMENT AND FLUENCY IN ARABIC PREFERRED.**

### **9. DIETITIAN:**

**Qualifications:** Masters Degree in Foods and Nutrition from an accredited institution with completion of a dietetic internship.

**Experience:** Minimum experience of 10 years. Must have a minimum of five years experience as a chief dietitian in a hospital or equivalent experience.

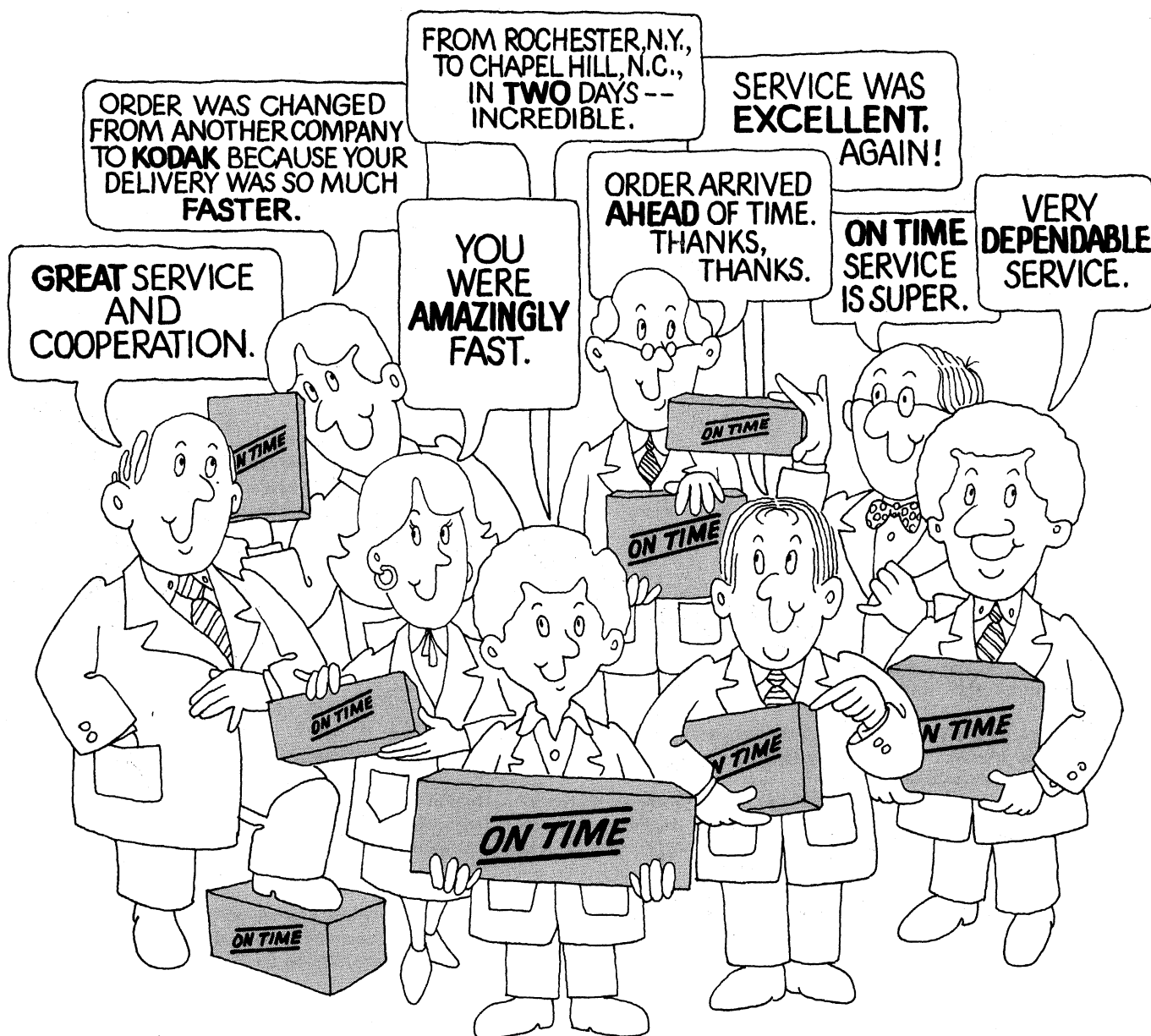
**BENEFITS:** Free medical treatment, free car, suitable accommodations, and a salary commensurate with qualifications and experience. Salary and other benefits will be negotiated during the interview.

Resumes are to be submitted in duplicate and should include names and addresses of two references, recent photograph, and current telephone contact. Deadline for submission of resumes is AUGUST 27, 1984.

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