

absent from conventional quantum theory. In chapter 3, Nelson discusses and analyzes the differences for single and double slit diffraction of plane waves, bound states for the hydrogen atom, and the grafting of spin and statistics onto the stochastic theory. A critical confrontation with quantum theory arises when measurement in stochastic mechanics is described. Under the additional requirement that the process is Markovian, the notion of locality within the setting of Bell's theorem for quantum mechanics is shown not to hold for the stochastic theory. This important example is given in chapter 4 for two particles, one a free particle and one a bound harmonic oscillator, which are stochastically correlated by dynamically uncoupled Markovian diffusions. With some agony, this example leads Nelson to abandon Markovian for non-Markovian diffusions as a possible stochastic framework for quantum fluctuations. Where this will lead must be left for the future.

For myself, this volume of lecture notes presents the foreground between stochastic mechanics and quantum mechanics with clarity, economy, and elegance—virtues that I have come to expect from Nelson's writing. The reader will need to have a background in mathematics and physics at the level of first-year graduate courses and some knowledge of tensor calculus on Riemannian manifolds. Otherwise the book is self-contained. There can be little doubt that the mathematics of stochastic mechanics is interesting and worthy of pursuit and that as an area of physics stochastic mechanics might provide a context for the study of classical phenomena in random backgrounds, such as electromagnetic phenomena that result from random sources. Whether one views stochastic mechanics as a possibly correct description of quantum fluctuations, without a flat contradiction between the two, is liable to depend upon whether one views quantum mechanics as a correct description of nature. A conservative view holds quantum mechanics to be only an approximation at the atomic scale of a more fundamental theory valid at subnuclear scales—perhaps quantum field theory or quantum statistical mechanics. These differing views need not be contradictory, but a considerable amount of work will be needed to make a convincing argument for stochastic mechanics as a fundamental physical theory. In this monograph the endeavor is in skillful hands.

JOHN L. CHALLIFOUR

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Books Received

Acquired Immune Deficiency Syndrome. Irving J. Selikoff, Alvin S. Teirstein, and Shalom Z. Hirschman, Eds. New York Academy of Sciences, New York, 1984. xiv, 622 pp., illus. Paper, \$140. Annals of the New York Academy of Sciences, vol. 437. From a conference, New York, Nov. 1983.

Advances in Microbial Ecology. Vol. 8. K. C. Marshall, Ed. Plenum, New York, 1985. xiv, 307 pp., illus. \$45.

The Age of Vulnerability. Threats to the Nuclear Stalemate. Michael Nacht. Brookings Institution, Washington, D.C., 1985. xii, 209 pp. \$26.95; paper, \$9.95.

Air-Borne Sulphur Pollution. Effects and Control. United Nations, New York, 1984. xiv, 265 pp., illus. Paper, \$19. Air Pollution, No. 1.

Air Pollution Modeling and Its Application IV. C. De Wispelaere, Ed. Plenum, New York, 1985. xii, 818 pp., illus. \$110. NATO Challenges of Modern Society, vol. 7. From a meeting, Copenhagen, Sept. 1983.

Biotechnologies. Challenges and Promises. Albert Sasson. Unesco, Paris, 1984 (U.S. distributor, Unipub, New York). 315 pp., illus. Paper, \$19.95. Sextant, 2.

Biotechnology for the Oils and Fats Industry. Colin Ratledge, Peter Dawson, and James Rattray, Eds. American Oil Chemists' Society, Champaign, Ill., 1984. x, 298 pp., illus. \$40.

Birds of North America. Eastern Region. A Quick Identification Guide to Common Birds. John Bull *et al.* Collier (Macmillan), New York, 1985. 157 pp., illus. \$16.95; paper, \$9.95. Macmillan Field Guides.

Les Bricoleurs du Septième Jour. Nouveaux Regards Entomologiques. Pierre Douzou. Fayard, Paris, 1985. 241 pp., illus. Paper, 79 F. Le Temps des Sciences.

A Calculus of Suffering. Pain, Professionalism, and Anesthesia in Nineteenth-Century America. Martin S. Pernick. Columbia University Press, New York, 1985. xvi, 421 pp., illus. \$35.

Cancer of the Respiratory Tract. Predisposing Factors. Marc J. Mass *et al.*, Eds. Raven, New York, 1985. xxviii, 468 pp., illus. \$75.50. Carcinogenesis, vol. 8. From a conference, Williamsburg, Va., June 1984.

Catastrophes in the Earth's History. I. A. Rezanov. Mir, Moscow, 1984 (U.S. distributor, Imported Publications, Chicago). 168 pp., illus. Paper, \$3.95. Man and the Environment. Translated from the Russian edition (Moscow, 1980) by H. Campbell Creighton.

The Catecholamines in Psychiatric and Neurologic Disorders. C. Raymond Lake and Michael G. Ziegler, Eds. Butterworth, Boston, 1985. xxii, 343 pp., illus. \$35.95.

Cell and Muscle Motility. Vol. 6. Jerry W. Shay, Ed. Plenum, New York, 1985. xvi, 377 pp., illus. \$49.50.

Challenge to American Schools. The Case for Standards and Values. John H. Bunzel, Ed. Oxford University Press, New York, 1985. viii, 248 pp. \$19.95.

Computing Techniques for Robots. I. Aleksander, Ed. Chapman and Hall, New York, 1985. 276 pp., illus. \$39.50.

Concepts in Biology. Eldon D. Enger *et al.* 4th ed. Brown, Dubuque, Iowa, 1985. xvi, 544 pp., illus. Paper. Laboratory Manual. vi, 158 pp., illus. Spiral bound.

Design Simulation. Use of Photographic and Electronic Media in Design and Presentation. Ernest Burden. Wiley-Interscience, New York, 1985. viii, 232 pp., illus. \$37.50.

Determinants of Substance Abuse. Biological, Psychological, and Environmental Factors. Mark Galizio and Stephen A. Maisto, Eds. Plenum, New York, 1985. x, 443 pp. \$42.50. Perspectives on Individual Differences.

Developmental Biology. Scott F. Gilbert. Sinauer, Sunderland, Mass., 1985. xiv, 726 pp., illus. \$33.95.

The Dialectical Biologist. Richard Levins and Richard Lewontin. Harvard University Press, Cambridge, Mass., 1985. xiv, 303 pp. \$20.

Digital Audio Signal Processing. An Anthology. John Strawn, Ed. Kaufmann, Los Altos, Calif., 1985. xvi, 283 pp., illus. \$34.95. The Computer Music and Digital Audio Series.

Directory of On-Going Research in Cancer Epidemiology. 1984. C. S. Muir and G. Wagner, Eds. Oxford University Press, New York, 1985. xx, 728 pp. Paper, \$26.50. IARC Scientific Publications No. 62.

Drug Control in a Free Society. James B. Bakalar and Lester Grinspoon. Cambridge University Press, New York, 1985. x, 174 pp. \$19.95.

Dynamics and Virgins. David Roe. Random, New York, 1984. vi, 218 pp. \$18.95.

Early Ceremonial Architecture in the Andes. Chris-

topher B. Donnan, Ed. Dumbarton Oaks Research Library and Collection, Washington, D.C., 1985. viii, 289 pp., illus. \$15.

The Early Evolution of Man. With Special Emphasis on Southeast Asia and Africa. Peter Andrews and Jens Lorenz Franzen, Eds. Senckenbergische Naturforschende Gesellschaft, Frankfurt am Main, Germany, 1984. 277 pp., illus. Paper, DM 48. *Courier Forschungsinstitut Senckenberg*, 69. From a symposium, Frankfurt am Main and Bad Homburg, Nov. 1983.

Ecotoxicology. Lennart Rasmussen, Ed. Publishing House of the Swedish Research Councils, Stockholm, 1984. 170 pp., illus. SEK 270. Ecological Bulletins, no. 36. From a conference, Copenhagen, Nov. 1982.

Electrode Processes and Electrochemical Engineering. Fumio Hine. Plenum, New York, 1985. xvi, 410 pp., illus. \$55.

Electronic Structure, Dynamics, and Quantum Structural Properties of Condensed Matter. Jozef T. Devereese and Piet Van Camp, Eds. Plenum, New York, 1985. xii, 591 pp. \$89.50. NATO ASI Series B, vol. 121. From an institute, Priorij Corsendonk, Belgium, July 1984.

Encyclopedia of Glass, Ceramics, and Cement. Martin Grayson, Ed. Wiley-Interscience, New York, 1985. xxviii, 925 pp., illus. \$89.95. Encyclopedia Reprint Series. Reprinted from the *Kirk-Othmer Encyclopedia of Chemical Technology*.

Encyclopedia of Statistical Sciences. Vol. 5. Lindeberg Condition to Multitrait-Multimethod Matrices. Samuel Kotz, Norman L. Johnson, and Campbell B. Read, Eds. Wiley-Interscience, New York, 1985. x, 741 pp. \$85.

The End of Culture. Toward a Generative Anthropology. Eric Gans. University of California Press, Berkeley, 1985. x, 345 pp. \$29.95.

Feeling Good and Doing Better. Ethics and Nontherapeutic Drug Use. Thomas H. Murray, Willard Gaylin, and Ruth Macklin, Eds. Humana, Clifton, N.J., 1984. x, 220 pp. \$17.50. Contemporary Issues in Biomedicine, Ethics, and Society.

Flora of New Zealand: Lichens. D. J. Galloway. Government Printing Office, Wellington, New Zealand, 1985. lxxiv, 662 pp. + plates. NZ\$39.95.

Foundations of Logic and Linguistics. Problems and Their Solutions. Georg Dorn and P. Weingartner, Eds. Plenum, New York, 1985. xii, 715 pp. \$95. From a congress, Salzburg, Austria, July 1983.

Functional Properties of Food Components. Yesahju Pomeranz. Academic Press, Orlando, Fla., 1985. x, 536 pp., illus. \$69. Food Science and Technology.

Fusion Technology 1984. Published for the Commission of the European Communities by Pergamon, New York, 1985. Two volumes. xlv, 1704 pp., illus. Paper, \$250. From a symposium, Varese, Italy, Sept. 1984.

Gamma Ray Astronomy. Rodney Hillier. Clarendon (Oxford University Press), New York, 1984. viii, 202 pp., illus. \$29.95. Oxford Studies in Physics.

The Garden Seed Inventory. Kent Whealy. Seed Savers Exchange, Decorah, Iowa, 1985. 448 pp. \$20; paper, \$12.50.

GEBCO: General Bathymetric Chart of the Oceans. 5th ed. International Hydrographic Organization/Intergovernmental Oceanographic Commission/Canadian Hydrographic Service, Ottawa, 1985 (available from the Canadian Government Publishing Centre, Ottawa). 19 maps + booklet. In slipcase, C\$100.

Gene Expression in Muscle. Richard C. Strohman and Stewart Wolf, Eds. Plenum, New York, 1985. x, 434 pp., illus. \$62.50. Advances in Experimental Medicine and Biology, vol. 182. From a colloquium, Bangor, Pa., Oct. 1983.

Genetics. A Human Concern. H. Eldon Sutton and Robert P. Wagner. Macmillan, New York, 1985. xii, 527 pp., illus. Cloth.

Geodetic Surveying. A. V. Moslov, A. V. Gordeev, and Yu. G. Batrakov. Mir, Moscow, 1984 (U.S. distributor, Imported Publications, Chicago). 652 pp., illus. \$13.95. Translated from the Russian edition (Moscow, 1980) by V. V. Kuznetsov.

The Geometry of Fractal Sets. K. J. Falconer. Cambridge University Press, New York, 1985. xiv, 162 pp., illus. \$32.50. Cambridge Tracts in Mathematics, 85.

Geomorphology. Richard J. Chorley, Stanley A. Schumm, and David E. Sugden. Methuen, New York, 1985. xxiv, 605 pp., illus., + plates. \$30.

Goal Directed Behavior. The Concept of Action in Psychology. Michael Frese and John Sabini, Eds. Erlbaum, Hillsdale, N.J., 1985. xxvi, 411 pp., illus. \$39.95.

Handbook of Endemic Treponematoses. Yaws, Endemic Syphilis, and Pinta. Peter L. Perine *et al.* World Health Organization, Geneva, 1984 (U.S. distributor, WHO Publications Centre USA, Albany, N.Y.). vi, 60 pp. + plates. Paper, \$10.

(Continued on page 683)

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(Continued from page 646)

Historical Events and People in Geosciences. Wilfried Schröder, Ed. Peter Lang, Frankfurt am Main, 1985. 220 pp., illus. Paper, 45 SFr. European University Studies, vol. 2. From a symposium, Hamburg, 1983.

Imaging the Earth's Interior. Jon F. Claerbout. Blackwell Scientific, Palo Alto, Calif., 1985. xvi, 398 pp., illus. \$39.95.

In Her Own Words. Oral Histories of Women Physicians. Regina Markell Morantz, Cynthia Stodola Pomerleau, and Carol Hansen Fenichel, Eds. Yale University Press, New Haven, Conn., 1985. xiv, 285 pp., illus. Paper, \$9.95. Reprint, 1982 edition.

Indoor Air Quality and Human Health. Isaac Turel. Stanford University Press, Stanford, Calif., 1985. xiv, 173 pp., illus. \$24.95.

Industrial Solvents Handbook. Ernest W. Flick, Ed. 3rd ed. Noyes, Park Ridge, N.J., 1985. xxiv, 648 pp., illus. \$86.

Information Processing in Animals. Conditioned Inhibition. Ralph R. Miller and Norman E. Spear, Eds. Erlbaum, Hillsdale, N.J., 1985. xii, 404 pp., illus. \$49.95. From a symposium, Binghamton, N.Y., June 1983.

Information Sources in Physics. Dennis F. Shaw, Ed. Butterworths, Boston, 1985. xii, 456 pp., \$66.95. Butterworths Guides to Information Sources.

The Information Technology Revolution. Tom Forster, Ed. MIT Press, Cambridge, Mass., 1985. xviii, 674 pp., illus. Paper, \$14.95.

Innovations in Materials Processing. Gordon Bruggeman and Volker Weiss, Eds. Plenum, New York, 1985. xiv, 519 pp., illus. \$79.50. Sagamore Army Materials Research Conference Proceedings, 30. From a conference, Lake Luzerne, N.Y., Aug. 1983.

Insects and Flowers. The Biology of a Partnership. Friedrich G. Barth. Princeton University Press, Princeton, N.J., 1985. x, 297 pp., illus. \$35. Translated from the German edition (Stuttgart, 1982) by M. A. Biederman-Thorson.

Instantons and Four-Manifolds. Daniel S. Freed and Karen K. Uhlenbeck. Springer-Verlag, New York, 1984. x, 232 pp., illus. \$15. Mathematical Sciences Research Institute Publications, vol. 1.

Medical Malpractice. A Preventive Approach. William O. Robertson. University of Washington Press, Seattle, 1985. x, 212 pp. \$20.

The Medium and the Scientist. The Story of Florence Cook and William Crookes. Trevor H. Hall. Prometheus, Buffalo, N.Y., 1985. xx, 188 pp., illus. \$18.95.

Memoir on the Pancreas and on the Role of Pancreatic Juice in Digestive Processes, Particularly in the Digestion of Neutral Fat. Claude Bernard. Academic Press, Orlando, Fla., 1985. x, 134 pp., illus. \$48. Monographs of the Physiological Society No. 42. Translated from the French edition (Paris, 1856) by John Henderson.

Minds, Brains and Science. John Searle. Harvard University Press, Cambridge, Mass., 1984. 107 pp. \$10.

Models of Reality. Shaping Thought and Action. Jacques Richardson, Ed. Lomond, Mt. Airy, Md., 1984. xiv, 328 pp. \$22.95.

Multiple Sclerosis. Experimental and Clinical Aspects. Labe Scheinberg and Cedric S. Raine, Eds. New York Academy of Sciences, New York, 1984. xii, 518 pp., illus. Paper, \$120. Annals of the New York Academy of Sciences, vol. 436. From a conference, New York, Nov. 1983.

The Technology Edge. Opportunities for America in World Competition. Gerard K. O'Neill. Simon and Schuster, New York, 1985. 299 pp. Paper, \$9.95. Reprint, 1983 edition.

Transformation and Tradition in the Sciences. Essays in Honor of I. Bernard Cohen. Everett Mendelsohn, Ed. Cambridge University Press, New York, 1985. xiv, 577 pp., \$54.50.

Tunable Solid State Lasers. P. Hammerling, A. B. Budgor, and A. Pinto, Eds. Springer-Verlag, New York, 1985. viii, 203 pp., illus. \$32. Springer Series in Optical Sciences, vol. 47. From a conference, La Jolla, Calif., June 1984.

Turbulent Shear Flows 4. L. J. S. Bradbury *et al.*, Eds. Springer-Verlag, New York, 1985. viii, 397 pp., illus. \$58. From a symposium, Karlsruhe, Germany, Sept. 1983.

The Wonder of Being Human. Our Brain and Our Mind. John Eccles and Daniel N. Robinson. New Science Library (Shambhala), Boston, 1985 (distributor, Random, New York). xiv, 183 pp., illus. Paper, \$8.95. Reprint, 1984 edition.

The X-Ray Universe. Wallace Tucker and Riccardo Giacconi. Harvard University Press, Cambridge, Mass., 1985. xii, 201 pp., illus. \$20. The Harvard Books on Astronomy.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Any deadline in ad must be at least 2 weeks after date of issue in which ad appears. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference.

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Biochemist/Microbiologist. Ph.D. Experience in protein purification and characterization, HPLC, monoclonal antibodies, and associated methodology. National Institutes of Health (NIH) Study Section member (4 years). Current research continuously supported by NIH for more than 10 years. Seeks challenging position in industry. Box 170, SCIENCE. 8/16, 23, 30, 9/6

Cell Biologist/Experimental Pathologist, Ph.D. Research interests during last 10 years have been the differentiation and early diagnosis of human cancer. Extensive experience in electron microscopy, cytochemistry, autoradiography, two-dimensional gel electrophoresis, affinity chromatography, and organ culture techniques. Numerous publications. Seeking position in industry or academic institution. Box 168, SCIENCE. 8/16, 23, 30

Computational Chemist. Ph.D. Texas 1974. Physical chemistry, protein x-ray crystallography, molecular graphics, drug design. Scientific programming and software development to analyze complex biological systems. Publications. Seeks research and development position. Will relocate. Box 173, SCIENCE. X

Genius Indian Medical Doctor (M.B.B.S.); discoverer of specific drug for viral hepatitis (under trial); promulgator of genetic hypotheses in organ transplantation; also working on space motion sickness and cancer; seeks a research position in surgery or other clinical side leading to a higher degree. Reply: Box 171, SCIENCE. X

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Computational/Medicinal Chemist. Ph.D., assistant research scientist. Extensive experience in molecular modeling and method development. Seeks challenging position in a good pharmaceutical R&D. Available immediately. Box 172, SCIENCE. X

Environmental/Soil Chemist. Training in laboratory research on environmental problems associated with livestock wastes, with emphasis on physical chemistry of soil surfaces that control mobility of pollutants in the environment. Pesticide residue analysis of feed, fat, and water. Experienced with GC, GPC, and wet methods. Postdoctoral and supervisory experience. Box 152, SCIENCE. 8/16, 30, 9/13

Senior Neurophysiologist, Ph.D., with 20 years of experience in teaching and research, desires position with clinical/basic science team engaged in electrophysiological research. Box 174, SCIENCE. X

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Candidates for faculty appointment are invited to apply for the following positions:

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Curriculum vitae may be directed to: **The University of Oklahoma College of Medicine, P.O. Box 26901, Oklahoma City, Okla. 73190.** Please identify the vacancy number of the position as indicated. *We are an Equal Opportunity Employer.*

ANATOMIST

Applications are invited for a tenure-track position at the assistant or associate professor level. Applicants must have a Ph.D., at least 2 years of postdoctoral experience, and an active research program, preferably in neurobiology. The candidate should be qualified to teach both neuroanatomy and histology to medical students. Experience in gross anatomy is desired. Send curriculum vitae and three letters of reference by 15 September 1985 to: **James D. Fix, Ph.D., Professor and Chairman, Department of Anatomy, Marshall University School of Medicine, Huntington, W.Va. 25704-2901.** *Marshall University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE PROFESSOR. Molecular animal virology. Applications are invited for a tenure-track position at either the assistant or associate professor level in a highly productive and interactive research and teaching department. Candidates should have a proven record of productivity in the area of molecular animal virology. Please send curriculum vitae, bibliography, description of research interests, and names and addresses of three references to: **Dr. Arthur Brown, Department of Microbiology, University of Tennessee, Knoxville, Tenn. 37996.** Deadline for applications is 15 September 1985; earliest starting date is 1 January 1986. *The University of Tennessee is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR POSTDOCTORAL RESEARCH ASSOCIATE

The Department of Ophthalmology at the University of Maryland at Baltimore has positions available at levels of postdoctoral research associate and assistant professor (research—nontenured). Candidates should have Ph.D. in biochemistry/physiology/histochemistry. Applicants with background in membrane physiology and biochemistry and experience with techniques of lipid isolation and characterization will be preferred. Please send curriculum vitae along with references to:

Dr. S. D. Varma
University of Maryland at Baltimore
School of Medicine
Department of Ophthalmology
10 South Pine Street
Baltimore, Maryland 21201

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POSITIONS OPEN

ANATOMIST

A recently established medical school invites applications to fill a tenure-track position in anatomy. Applicants must possess a Ph.D. and/or M.D. with postdoctoral training. The successful candidate will participate as a tutor in a problem-based curriculum and be expected to develop an active research program. Applications will be accepted until 15 September 1985. Applicants are requested to submit curriculum vitae, a brief statement of professional objectives and research interests, and the names and addresses of three referees to: **Dr. Robert Moon, Chairman, Division Basic Medical Sciences, Mercer University School of Medicine, Macon, Ga. 31207. An Equal Opportunity/Affirmative Action Employer.**

ASSISTANT EDITOR

National professional association located in Washington, D.C., is seeking a bright, hardworking individual, proficient in technical writing and editing, to assist in the publication of the *Journal of Pharmaceutical Science*. Candidate must have at least a B.S. in chemistry with an M.S. in pharmaceutical chemistry or biochemistry preferred and a minimum of 2 years of experience in scientific journalism. An English degree and work experience in a research laboratory would be helpful. Please send résumé with salary requirements to: **Personnel Manager, American Pharmaceutical Association, 2215 Constitution Avenue, NW, Washington, D.C. 20037.**

ASSISTANT PROFESSOR OR ASSISTANT RESEARCH SCIENTIST

Research faculty position available in Department of Medicine, Columbia University. Research involves study of atherosclerosis; arachidonic acid metabolism (cyclooxygenase and lipoxigenase products) in blood vessels and vascular cells. Candidates must have M.D. or Ph.D. in biochemistry of pharmacology and postdoctoral research experience. Laboratory skills sought include cell culture, HPLC, RIA, and/or GC-mass spectrometry. Send curriculum vitae, statement of research interests, and two letters of reference to: **Dr. Paul J. Cannon, Department of Medicine, College of Physicians & Surgeons of Columbia University, 630 West 168 Street, New York, N.Y. 10032. An Equal Opportunity/Affirmative Action Employer.**

ASSISTANT/ASSOCIATE PROFESSOR OF BIOCHEMISTRY UNIVERSITY OF KENTUCKY COLLEGE OF MEDICINE

Three tenure-track positions are available at the level of assistant or associate professor. Candidates must have post Ph.D./M.D. training and will be expected to establish an active independent research program as well as to participate in teaching graduate and medical students. While the area of interest is open, preference will be given to individuals with expertise in physical biochemistry, molecular biology, nucleic acid chemistry/enzymology, or biochemical genetics. The department maintains substantial facilities for chemical and physical analysis of small and large biological molecules including automated protein microsequencing, oligonucleotide synthesis, and GC/mass spectrometry. Other resources are available through the Lucille P. Markey Cancer Center, the Sanders-Brown Center on Aging, a newly created Magnetic Resonance Imaging and Spectroscopy Facility, and the Tobacco and Health Research Institute. Submit curriculum vitae, a list of publications, a brief synopsis of present and proposed research, and the names of three references by 30 September 1985 to: **Dr. Thomas C. Vanaman, Chairman, Department of Biochemistry, University of Kentucky, College of Medicine, Lexington, Ky. 40536-0084. An Equal Opportunity Employer.**

DEPARTMENT OF CHEMISTRY UNIVERSITY OF CALIFORNIA, BERKELEY

Applications are invited for a position at the level of **ASSISTANT PROFESSOR OF CHEMISTRY**, available fall 1986, pending budgetary approval. We are interested in outstanding candidates, with exceptional promise in teaching and research in experimental physical chemistry.

Candidates should submit curriculum vitae (including a list of publications and a summary of their teaching and research objectives), and request three letters of reference, all to be sent to: **Chairman, Faculty Recruiting Committee, Department of Chemistry, University of California, Berkeley, California 94720. Deadline for receipt of applications is 1 October, 1985. The University of California is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

The Department of Physiology, The George Washington University, School of Medicine and Health Sciences, seeks a tenure-track faculty member at the rank of **ASSISTANT/ASSOCIATE PROFESSOR**. Duties of this position will include participation in the departmental teaching programs for medical and allied health students, participation in the graduate training program, and the establishment of an independent research program. Candidates should have at least 2 years of experience in teaching physiology at the post-baccalaureate level and have a record of successful competition for research funding. Preference will be given to candidates whose research expertise and teaching experience are in the area of respiratory or endocrine physiology.

Applications, which should include curriculum vitae and the names of three individuals to whom reference can be made, should be addressed to: **Chairman, Department of Physiology, The George Washington University School of Medicine, 2300 Eye Street, NW, Washington, D.C. 20037.**

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ASSISTANT/ASSOCIATE PROFESSOR, BIOLOGY. Entomologist. Expert in population biology agroecosystems. Ph.D. required. Research emphasis on tephritid populations in fruit orchards. Excellence in teaching expected. Salary negotiable. Submit résumé, transcript, three letters of recommendation, and letter of professional goals by 15 September 1985 to: **Chairman, Entomology Search Committee, Department of Biology, UTAH STATE UNIVERSITY, Logan, Utah 84322-5305. An Affirmative Action/Equal Opportunity Employer.**

School of Forest Resources, North Carolina State University, ASSISTANT PROFESSOR OF FOREST BIOTECHNOLOGY. Appointee shall be responsible for development of a program of research in molecular biology and genetic engineering of southern pines. Candidates must have earned Ph.D. in plant physiology, microbiology, biochemistry, molecular biology, or related field. Familiarity with trees desired. Demonstrated competence in planning, conducting, and publishing research essential. Applicant must have ability to work closely with others and to obtain grants. Send letter of application, curriculum vitae, transcripts, and three letters of reference by 1 October 1985 to: **Dr. Arthur W. Cooper, Head, Department of Forestry, North Carolina State University, Box 8002, Raleigh, N.C. 27695.**

DEPARTMENT OF PSYCHOLOGY CORNELL UNIVERSITY

Tenure track, Assistant Professor in Personality-Social Psychology

The Department of Psychology of the College of Arts and Sciences at Cornell University is seeking candidates for a tenure-track position at the assistant professor level in personality or social psychology, beginning in September 1986. People with developmental interests in these fields are also encouraged to apply. Interested applicants should submit complete curriculum vitae, reprints or preprints of completed research, and letters of recommendation sent directly from three referees to:

**Tom Gilovich, Chair
Personality/Social Psychology Search Committee
Department of Psychology
Uris Hall
Cornell University
Ithaca, N.Y. 14853**

Review of applications will begin 15 November 1985.

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CELL BIOLOGIST—ION TRANSPORT

Postdoctoral fellow or research associate to join a new research group investigating the cellular basis of cystic fibrosis. Should be experienced in ion-transport, patch-clamp recording, or microelectrode recording. The position is available 1 September and is fully funded for 3 years. A well-equipped laboratory for cellular electrophysiological studies of excised and cultured tissue will be provided. The applicant will be encouraged to participate in collaborative research that has been initiated with medical researchers at University of California, Riverside, University of California, San Francisco, and Children's Hospital at Stanford. Send curriculum vitae and names of references to: **Dr. Jeffrey J. Wine, Cystic Fibrosis Research Laboratory, Building 420, Stanford University, Stanford, Calif. 94305. Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR IN IMMUNOLOGY

The Department of Microbiology invites applications for a faculty appointment at the Medical College of Ohio. Candidates must have a Ph.D. or M.D., at least 2 years of postdoctoral experience, and well-developed research goals. Individuals with interest in molecular-genetic approaches are particularly encouraged to apply, though others will be considered. The position represents a 12-month, tenure-track appointment and involves the pursuit of an independent research program; participation in teaching graduate, medical, and nursing students; and participation in departmental and college activities such as the seminar programs. Send curriculum vitae, names of three references, and a two- to three-page statement of research goals to: **Dr. Earl H. Freimer, Chairman, Department of Microbiology, Medical College of Ohio, C.S. Number 10008, Toledo, Ohio 43699.**

Equal Opportunity Employer

ASSISTANT PROFESSOR OF MICROBIOLOGY

The Department of Biology is seeking applicants for a tenure-track position for an individual holding a Ph.D. in microbiology with postdoctoral experience. Duties will include teaching undergraduate courses in the area of general microbiology and immunology and contributing to the graduate research and teaching programs. Applicants should submit a letter of application including curriculum vitae, a brief description of research interests, and names, addresses, and telephone numbers of at least three references to:

**James L. Botsford, Chairman
Microbiology Search Committee
Department of Biology
New Mexico State University
Las Cruces, New Mexico 88003
Telephone: 505-646-3726**

The Department of Biology offers the B.S., M.S., and Ph.D. in microbiology. Applications close 1 October 1985. *New Mexico State University is an Affirmative Action/Equal Opportunity Institution.* Salary negotiable.

ASSISTANT PROFESSOR—MOLECULAR ASPECTS OF DEVELOPMENT. Rutgers-The State University of New Jersey is recruiting for its Newark campus a person to establish a research program in a molecularly oriented area of developmental biology. Preference will be given to emphasis on gene transfer techniques. The successful candidate will also be encouraged to interact with the newly forming neuroscience center on campus.

This is a tenure-track position carrying a light teaching load commensurate with a major research effort. Candidates should have at least 2 years of postdoctoral experience. Starting date is January 1986 for this anticipated position.

Candidates should send curriculum vitae, a brief statement of research plans, and three letters of recommendation to:

**Dr. H. H. Feder, Chairman
Biology Search Committee
Department of Zoology and Physiology
Rutgers-The State University
Newark, New Jersey 07102**

Application deadline: 15 October 1985.

Rutgers University is an Equal Opportunity/Affirmative Action Employer.

CHAIRPERSON DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS THE UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON

Applications and nominations are invited for the position of chairperson of the Department of Physiology and Biophysics. Candidates must be highly qualified individuals with nationally recognized credentials in research and senior academic accomplishments with administrative experience or potential. The position offers excellent opportunity to develop an internationally leading academic department due to outstanding resources, scientific environment, and faculty positions.

Application or nomination should include curriculum vitae. Address correspondence to:

**James C. Thompson, M.D., Chairman
Department of Surgery
The University of Texas Medical Branch
Galveston, Texas 77550**

The University of Texas Medical Branch is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR IN PHARMACOLOGY/TOXICOLOGY Molecular Pharmacology/Toxicology (Drug Metabolism)

Carcinogenesis/Genotoxicology
Immunopharmacology/Toxicology
Renal Pharmacology/Toxicology

Two tenure-track faculty positions in the above areas are available in the Department of Pharmacology and Toxicology at the University of Mississippi Medical Center in Jackson. Rank depends on experience. Candidates must have at least 2 years of postdoctoral training and a record of research accomplishment. On the assistant professor level, candidates should be committed to developing a strong, independent, fundable research program and to participate in medical, dental, and graduate teaching in one of the above areas. On the senior faculty level, candidates should have a record of peer-reviewed grants, research publications, and participation in teaching. Complete curriculum vitae, including a brief statement of research interests and the names of individuals who may be contacted as references, should be sent to:

Dr. I. K. Ho
Professor and Chairman
Department of Pharmacology and Toxicology
University of Mississippi Medical Center
2500 North State Street
Jackson, Mississippi 39216-4505

The University of Mississippi Medical Center is an Equal Opportunity Employer, M/F/H/V.

ASSOCIATE CLINICAL DIRECTOR Ph.D. in Pharmacology or Biochemistry

Clinical scientist for consumer product-testing facility in the South. Industry experience preferred but not necessary. Strong communication skills, both oral and written, are a prerequisite.

You will be responsible for managing studies and developing protocols and will be afforded direct client contact. Position allows you opportunities to "share in profits."

To apply, send your résumé or curriculum vitae with salary history to: Box 175, SCIENCE.

ASSOCIATE DEAN COLLEGE OF ALLIED HEALTH PROFESSIONS UNIVERSITY OF SOUTH ALABAMA

The College of Allied Health Professions, University of South Alabama, invites nominations and applications for the position of associate dean.

The associate dean is responsible for curriculum matters, student records, student advisement, registration, and graduate education. Additionally, the associate dean initiates and coordinates new program development, faculty development, and grant activities and is responsible for other duties as assigned by the dean. The associate dean supervises the Office of Academic Counseling.

Candidates must hold the Ph.D. degree and be eligible for faculty rank with a record of research and scholarly activity. Preference will be given to candidates with relevant experience. Academic rank and salary will be commensurate with qualifications.

Send curriculum vitae and the names and addresses of three references to: Search Committee for the Associate Dean, College of Allied Health Professions, Number 482 Cancer Center/Clinical Building, University of South Alabama, Mobile, Alabama 36688. Deadline for applications: 16 September 1985.

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

BIOCHEMIST/CELL BIOLOGIST

We seek a scientist with expertise in one or more of the following areas: (i) epithelial and/or vascular cell culture techniques, (ii) cellular electrophysiology, (iii) aerobic/anaerobic metabolism, and (iv) phospholipid regulation in cell or organellar membranes. The primary appointment at the assistant, or possibly associate, professor level will be in the Department of Medicine at the University of Colorado School of Medicine. The successful candidate will interact with a large group of investigators investigating the pathogenesis and prevention of polycystic kidney disease and renal ischemia. Applicants should send curriculum vitae, names of three references, and a brief statement of research interests, as they apply to the four areas listed above, no later than 1 October 1985 to: T. J. Burke, Ph.D., c/o Search Committee, Renal Division, C281, University of Colorado Health Sciences Center, 4200 East 9 Avenue, Denver, Colo. 80262. *The University of Colorado is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSOCIATE DIRECTOR Division of Medicinal Chemistry

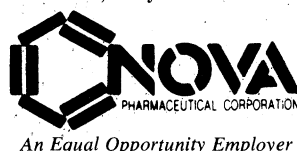
Nova, a young pharmaceutical company located in Baltimore, Maryland, has a challenging opportunity for an individual with an established track record in the field of synthetic organic chemistry.

The position requires a Ph.D. degree in organic chemistry and several years of successful academic or industrial experience documented by publications and/or patents. Demonstrated managerial skills in supervising a large group of organic chemists is also required.

Nova offers highly competitive salaries and an array of fringe benefits.

Forward your résumé with the names of three references and salary history to:

Lydia K. Cumor
Director of Personnel
NOVA PHARMACEUTICAL CORPORATION
5210 Eastern Avenue
Baltimore, Maryland 21224-2788



West Virginia University (WVU), School of Medicine, is seeking a Board-certified physician with an established record of scholarly achievement and clinical service to CHAIR its DEPARTMENT OF MEDICINE. The department, encompassing general medicine and all subspecialties, is an integral component of the rapidly expanding programs and facilities at the WVU Medical Center. Applicants should submit their curriculum vitae and names and addresses of three references by 13 September 1985 to: Dr. Robert S. McCuskey, Professor and Chairman of Anatomy, WVU Medical Center, Morgantown, W. Va. 26505. *West Virginia University is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

BERKELEY BIOLOGY LIBRARIAN

Head, Biology Library, to manage library operations. Collection includes 200,000 monographs and 4,000 current serial subscriptions and a staff of nine full-time employees. Largest science branch that serves a diverse clientele of faculty, researchers, and students.

QUALIFICATIONS: Must have M.L.S. Candidates with undergraduate degree in one of the life sciences will be given special consideration. Needs leadership skills in program planning, space planning, collection development, personnel development, and automation implementation. The successful candidate should demonstrate superior verbal and written communications skills.

Full job description mailed on request. Salary in the \$36,504 to \$50,604 per annum range, depending on qualifications. Position available 1 December 1985 or as soon thereafter as possible. Send résumé, including the names and addresses of three professional references, by 30 September 1985 to:

William E. Wenz, Library Personnel Officer
Room 447 General Library
University of California
Berkeley, California 94720

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

CHAIRPERSON OF PHARMACOLOGY. We are seeking an enthusiastic, innovative individual, with administrative experience and a strong basic science research record, who will develop quality graduate and undergraduate training programs and novel intra- and interdepartmental research. Significant opportunity for program expansion and for working with other basic and clinical scientists. Applicants should send their curriculum vitae and three references to: Michael Alan Taylor, M.D., Chairman, Search Committee for Chair of Pharmacology, Department of Psychiatry, University of Health Sciences (UHS)/The Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064. *UHS/The Chicago Medical School is an Equal Opportunity/Affirmative Action Employer.*

Postdoctoral Scientists Molecular Pharmacology

Smith Kline & French Laboratories, located in suburban Upper Merion, Pennsylvania, is seeking two outstanding individuals to join an interdisciplinary research program as Postdoctoral Scientists in an environment designed to foster creative, innovative research and to promote personal and professional growth. Our postdoctoral appointments are of one year duration and with mutual agreement, renewable for a second year.

Successful candidates will be involved in basic research on the enzymology, molecular biology and pharmacology of eukaryotic topoisomerases and will be encouraged to publish their findings in leading journals and to interact fully with the scientific community.

One of these individuals is required to have: (ref: PD-1)

- A Ph.D. in Biochemistry, Pharmacology or a related field with 0-2 years postdoctoral experience.
- formal training and experience in enzymology, protein purification and characterization.
- interest in the effects of drugs on enzyme and nucleic acid structure and function.

The other individual is required to have: (ref: PD-2)

- a Ph.D. in Cell Biology, Molecular Biology or related disciplines with 0-2 years of postdoctoral experience.
- formal training and experience in mammalian cell biology with emphasis on chromatin structure and function.
- interest in changes in DNA and nuclear enzymes in relationship to oncogenesis.

Both individuals are expected to have:

- scientific publications in leading journals.
- excellent oral and written communication skills.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your CV and names of three references, citing the appropriate reference number listed above to: Mr. Walter B. Flagg, Senior Employment Consultant, S K & F, a division of SmithKline Beckman Corporation, 1566 Spring Garden St., Phila., PA 19101. We are an equal opportunity employer, M/F/H/V.

SK&F
A SmithKline Beckman Company

POSITIONS OPEN

ASSISTANT PROFESSOR POSITIONS, DEPARTMENT OF PHYSIOLOGY—Duke University Medical Center. Tenure-track appointment (two) will be available to candidates with Ph.D. and/or M.D. who have postdoctoral experience and are strongly committed to a research program in the areas of molecular physiology and cellular biophysics. Preference will be given to candidates with interest in fundamental biological and regulatory processes as well as in the analysis of complex integrated systems. Please send curriculum vitae, statement of research plan, and the names of references by 15 September 1985 to: **Physiology Search Committee, DUKE UNIVERSITY MEDICAL CENTER, Box 3709-A, Durham, North Carolina 27710. Duke University is an Equal Opportunity/Affirmative Action Employer.**

BOTANY DEPARTMENT HEAD

The University of Georgia invites applications and nominations for the headship of its Botany Department. The department is in the College of Arts and Sciences and has 22 faculty members and approximately 50 graduate students. Research interests of the faculty range over the spectrum of plant sciences, from molecular biology to ecology and systematics. The head is expected to direct the continued strengthening of research and teaching programs and to maintain a vigorous individual research program. Candidates should have a Ph.D. and at least 5 years of experience in research and teaching. Administrative experience is desirable. Application deadline is 1 December 1985. Send curriculum vitae, statement of research interests, and names of four references to: **Wyatt W. Anderson, Botany Head Search Committee, Department of Genetics, Biological Sciences Building, University of Georgia, Athens, Ga. 30602. Telephone: 404-542-8000. An Affirmative Action/Equal Opportunity Institution.**

Chemist

IMMUNOLOGICAL CHEMIST

Cetus Corporation seeks a scientist to join its research team in the development of immunological assays. This scientist will support process and product development in the immunological characterization of our protein products and may apply these analyses to research issues within clinical, pharmacological, and diagnostic areas. Requirements are an M.S. with extensive experience or a Ph.D. in immunology/biochemistry or related field with familiarity in RIA, ELISA, Western blots, and other immunological techniques. This position offers an opportunity to work with a group of innovative scientists on the newest developments in health-care products from biotechnology.

Send résumé to:

**CETUS CORPORATION
Box SDA
1400 Fifty-Third Street
Emeryville, Calif. 94608
Equal Opportunity Employer**

Position available, Board-certified/eligible, Ph.D. **CYTOGENETICIST** to direct small private genetics laboratory. Position available immediately. Send résumé to: **Dr. Charles Garrison, Genetics & Laboratory Medicine, P.C., 3300 Buckeye Road, Suite 178, Atlanta, Ga. 30341.**

FACULTY POSITION

The Department of Biology, University of Alabama at Birmingham, invites applications for a tenure-track position. Applicants should provide evidence that they can develop a strong, independent research program in the areas of endocrinology or immunology. The successful candidate will be expected to contribute to the graduate program, and to teach an undergraduate course in immunology. Send curriculum vitae, selected reprints, a brief outline of future research plans, and the names of three references by 1 September 1985 to: **Search Committee, Department of Biology, University Station, Birmingham, Ala. 35294. The University of Alabama at Birmingham is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

CLINICAL PHARMACOLOGIST. The Department of Pharmacology and Therapeutics, Schools of Medicine and Dentistry, State University of New York at Buffalo, invites applications for a full-time faculty position as assistant professor with joint appointment at the same rank in a clinical department. Candidates must have M.D. degree, U.S. license to practice, and appropriate clinical training in one of the following specialties: internal medicine, pediatrics (emphasis on genetics), anesthesiology, or neurology. Candidates should also have a Ph.D. or fellowship training in pharmacology or a closely related discipline. Send curriculum vitae and also request that three letters of recommendation be sent to: **Dr. Edward A. Carr, Jr., 127 Farber Hall, State University of New York at Buffalo, Buffalo, N.Y. 14214. An Equal Opportunity/Affirmative Action Employer.**

DIRECTOR, PUBLIC AFFAIRS OFFICE

Director, Public Affairs Office for the Ecological Society of America (ESA). Scientific credentials in ecology or experience in related environmental areas; graduate degree preferred. Experience in public affairs essential, especially at the state and federal level. Familiarity with other professional societies and national scientific organizations. Maturity, judgment, and administrative/organizational skills necessary. Applicant must be able to work independently and effectively, have good interpersonal abilities, and possess persuasive communication skills. Salary up to \$50,000, negotiable based upon experience. Job description available upon request. Applicants should submit: statement of interest in this position; résumé; and three letters of reference emphasizing both scientific credentials and experience in public affairs-related activities. Reply to: **Dr. David E. Reichle, Chairman, ESA Public Affairs Committee, Oak Ridge National Laboratory, P.O. Box X, Building 1505, Oak Ridge, Tenn. 37831, by 1 October 1985. The Ecological Society of America is an Affirmative Action/Equal Opportunity Employer.**

DIRECTOR OF EDUCATION The New York Botanical Garden

World-renowned education, science, and cultural institution seeks qualified individual to manage our extensive public education program in plant studies. Program includes continuing education with an annual registration of over 11,000; vocational education for secondary and postsecondary audiences combining classroom learning with work experience; and children's/youth education serving school and organized groups.

Responsibilities: reporting to vice president, manages all aspects of the Education Department, directs planning, budgeting, and implementation of all public education programs. Supervises a staff of 26 and 200 contract instructors. Participates in institutional programming, planning, and management activities.

Qualifications: Ph.D. in plant science or related discipline, minimum of 3 years of teaching and significant management experience in a cultural or academic institution. Strong communication and marketing skills, track record in program planning and implementation, budgeting and fiscal control, excellent interpersonal and supervisory skills, and a broad vision of the educational role of urban cultural institutions.

Excellent salary and benefits package. Send letter of application, résumé, and names, addresses, and telephone numbers of four references to:

**Director of Personnel Services
The New York Botanical Garden
Southern Boulevard
Bronx, N.Y. 10458**

An Equal Opportunity Employer, M/F

EXPERIMENTAL EQUIPMENT SPECIALIST—The Physics Department at a leading university has a 40-hour-a-week position available for an individual who has expertise and experience in the maintenance, installation, servicing, development, and layout of radiofrequency electronics, digital electronics, optical and laser equipment. It is expected that general and preventive maintenance as well as renovation and construction can be performed on electronic instrumentation in the department laboratories: Van de Graaff, ESR, Mossbauer, Raman, multichannel analyzers, microcomputers, and so forth. The salary for this position is \$20,200 per annum. Send résumé to: **E. R. Robinson, Alabama State Employment Service, 1816 8th Avenue North, Birmingham, Ala. 35203. Job Order Number 119004. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ENVIRONMENTAL CHEMISTS

The California Public Health Foundation has available in Berkeley several positions to conduct chemical analysis, develop standardized methodologies, and carry out focused research on environmental contamination under contract to the California State Department of Health Services.

The positions are divided into five levels, so a wide range of knowledge and abilities can be considered. Applicants may be recent college graduates in chemistry, chemists with undergraduate degrees with various levels of experience, or chemists with master's and Ph.D. degrees with varying amounts of research experience. All individuals should demonstrate interest and capability in conducting analyses with environmental materials.

The ideal candidate will have experience conducting research using state-of-the-art instrumentation and developing new processes and procedures to analyze hazardous chemicals in minute quantities in virtually any form.

The Foundation is a not-for-profit California corporation providing a variety of services to the public health scientific community associated with implementation of government policies. Applicants should send a résumé or curriculum vitae to: **Philip Brodzinsky, P.O. Box 520, Berkeley, California 94701. The Foundation is an Equal Opportunity Employer.**

FACULTY POSITIONS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS

The University of Texas Health Science Center at Dallas invites applications for junior or senior level positions available in fall 1986. Applicants must have postgraduate experience in molecular biology or biochemistry and be capable of developing an independent research program.

Teaching responsibilities include instructing medical and graduate students in selected areas of biochemistry and molecular biology. Applicants should send curriculum vitae, brief summaries of past research experience, their proposed research program, and the names of three people who can provide letters of reference to:

**Biochemistry Search Committee
University of Texas Health Science Center at Dallas
5323 Harry Hines Boulevard
Dallas, Texas 75235**

An Equal Opportunity/Affirmative Action Employer

University of Michigan Medical School, Department of Biological Chemistry, is inviting applications for **TWO FACULTY POSITIONS** at the rank of **lecturer or assistant professor**, depending upon experience. Candidates should have a Ph.D. in biochemistry or closely related field, preferably with some postdoctoral training in the isolation of membrane-bound enzymes and/or molecular genetics and an interest in research on cytochrome P-450. Teaching obligations will not exceed 5 to 10 percent of total effort. Send résumé to: **Dr. M. J. Coon, Chairman, Department of Biological Chemistry, The University of Michigan Medical School, Ann Arbor, Michigan 48109-0010. A nondiscriminatory, Affirmative Action Employer. Code 41.**

FACULTY POSITION—ORGANIC/BIO-ORGANIC CHEMISTRY. Tenure-track, at assistant/associate professor level starting August 1986. Requires doctorate; subsequent postdoctoral experience preferred. Must establish a vigorous program of research in any field of organic/bio-organic chemistry. Commitment to excellence in undergraduate and graduate teaching essential. Apply with complete résumé, undergraduate transcripts, a description of research plans, plus three letters of recommendation by 15 October (or until suitable candidate applies thereafter) to: **Organic Search Committee, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, Nebraska 68588-0304. An Affirmative Action/Equal Opportunity Employer.**

Ph.D. IMMUNOLOGY/CELL BIOLOGY. Postdoctoral position available immediately for immunologist/cell biologist in a transplantation biology laboratory. Project duration: 4 to 5 years. Salary negotiable. Send résumé to: **Hans W. Sollinger, M.D., Associate Professor, Department of Surgery H4/312 C.S.C., 600 Highland Avenue, Madison, Wis. 53792. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.**

Neurophysiologist/ Neuropharmacologist

SEARLE RESEARCH AND DEVELOPMENT has an opening for a Neurophysiologist/Neuropharmacologist to work as part of a CNS team effort to develop neurotropic drugs. The responsibilities of this position will be to direct neurophysiological efforts to develop an insight into the mechanism of drug action in specific brain areas. Current areas of research interest include analgesia and memory/cognition.

The successful candidate should have a background or knowledge of neurophysiology involving single unit recording and recording slow potentials using both in vivo and in vitro preparations. The candidate must have well integrated interpersonal and scientific skills. Although the minimum requirement is a Ph.D., preference will be given to those scientists with more extensive experience in the areas described above.

Searle R&D offers excellent compensation, benefits and a challenging work environment. To apply in strict confidence, please submit resume to:

B. Gardner/#7FN-7
Searle Research
and Development
Division of G.D. Searle & Co.
4901 Searle Parkway
Skokie, IL 60077

An Equal Opportunity Employer
M/F/H

SEARLE



Government
of Canada

Gouvernement
du Canada

VISITING FELLOWSHIPS in CANADIAN GOVERNMENT LABORATORIES 1986-87

The Government of Canada offers visiting fellowships in Canadian Government Laboratories to provide promising young scientists with the opportunity to work with well-established research groups and leaders in their fields. These fellowships are tenable in the laboratories of the following departments and agencies:

Agriculture Canada
Atomic Energy of Canada Limited
Communications Canada
Energy, Mines and Resources
Environment Canada

Fisheries and Oceans Canada
Health and Welfare Canada
National Defence
National Museums of Canada
National Research Council Canada

Eligibility: Applicants should have received a doctorate from a recognized university within the last five years or a master's degree followed by at least two years of research experience and a demonstrated capability to conduct independent research.

There are no citizenship restrictions. However, successful candidates who are not Canadians or permanent residents of Canada must satisfy Canadian immigration requirements.

Stipend: Fellowships have an annual value of \$26,760 (under review) plus a travel allowance.

Duration of Tenure: Appointments are made for one year; renewals for a second year are possible.

Application Procedures: The deadline for receipt of applications is January 15, 1986. Information regarding application procedures may be obtained from: Nicole Lalonde, Natural Sciences and Engineering Research Council, 200 Kent Street, Ottawa, Ontario, Canada K1A 1H5. Telephone: (613) 996-4363.

Canada

SENIOR SCIENTIST POSITIONS IN MICROBIOLOGICAL RESEARCH

The Research Division at Schering-Plough has 3 openings within the Microbiology Division. These positions are at the Senior Scientist level requiring a PhD or equivalent in the appropriate area, with 0 to 3 years relevant academic or industrial experience. Outstanding scientific background and excellent communication skills are required.

MOLECULAR VIROLOGIST

Experience with DNA or CDNA animal viral gene cloning, plasmid construction and determination of viral gene expression levels in mammalian cells. Techniques of tissue culture and virus production are required for this position in the New Drug Discovery area.

VIROLOGIST

Experience in large scale (roller bottle) tissue culture techniques with capabilities in virus stock production. Facility with routine mycoplasma screening, tissue culture media preparation and microtiter assay development is required. Knowledge in Interferon activities and Interferon assay would be beneficial.

BIOCHEMIST

Broadly trained with experience in one or more of the following areas: microbial physiology, molecular biology, or pharmacology to be part of a multidisciplinary team involved in designing new and innovative procedures for the detection of therapeutically useful substances. An appreciation of pathogenic mechanisms and virulence would be desirable.

We offer a stimulating scientific environment together with a competitive salary based on education and experience and comprehensive company benefits.

Qualified candidates are invited to submit resume along with salary history and requirements, in confidence, to: Mr. Louis DeMartino, Schering-Plough Corporation, 60 Orange Street, Bloomfield, New Jersey 07003. We are an equal opportunity employer m/f.



Schering-Plough

POSITIONS OPEN

FACULTY POSITION IN ENDOCRINOLOGY DIRECTOR, DIABETES CENTER

Applications are invited for a position at the level of assistant professor to establish and direct a Diabetes Center in the Section of Endocrinology and Metabolism at Rush Medical College and the Rush-Presbyterian-St. Luke's Medical Center. Successful candidates should be Board-certified in medicine and endocrinology and have strong clinical and research interest in a diabetes-related area.

Responsibilities include participation in teaching and patient care within a division newly committed to both clinical and basic research in the role of hormones in the etiology and development of atherosclerosis. Inquiries and résumé to:

John D. Bagdade, M.D.
Section of Endocrinology and Metabolism
Rush-Presbyterian-St. Luke's Medical Center
1753 West Congress Parkway
Chicago, Ill. 60612

Equal Opportunity/Affirmative Action Employer

UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA) SCHOOL OF MEDICINE DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY FACULTY POSITION

Academic appointment for an assistant professor in a tenure-track position is available for an individual with training and research experience in the area of molecular immunology. Applicant must possess a doctoral degree, postdoctoral experience, and have a current interest in genes and gene products related to T-cell and/or macrophage cell surface receptors. Applicant must be able to develop an independent research program and interact with individual members of the department whose interests are in the areas of microbiology and immunology. Responsibilities include participation in the department teaching of medical and graduate students, as well as development of graduate courses.

Applicant should submit curriculum vitae, list of publications, a description of current and future interests, and names of three references. The deadline for receipt of application is 1 October 1985. Complete application should be sent to:

Felix O. Wettstein, Ph.D., Professor
Chairperson of the Search Committee
Department of Microbiology and Immunology
UCLA School of Medicine
Los Angeles, California 90024

UCLA is an Equal Opportunity/Affirmative Action Employer.

Position for **EXPERIENCED MOLECULAR BIOLOGIST** interested in exploring the molecular biology of adrenergic receptors (open immediately). Projects of interest include cDNA and genomic cloning, gene expression, and regulation. Ph.D. or equivalent and prior experience in molecular biology required. Position and salary commensurate with experience. Applications including curriculum vitae, list of publications, and names of two or three references should be sent to:

Robert J. Lefkowitz/Marc G. Caron
Howard Hughes Medical Institute
Box 3821, Department of Medicine
Duke University Medical Center
Durham, North Carolina 27710

MOLECULAR BIOLOGY OF BRAIN TUMORS

The Division of Neurosurgery and the Department of Medical Microbiology and Immunology have an opening for a **research faculty position** for an individual with a primary interest in oncogenes. Candidates should possess a strong background in molecular biology and research experience and interests in some aspect of the role of oncogenes in tumorigenesis. The successful candidate will be expected to develop a strong, independent research program as part of an ongoing research effort in the biology of brain tumors. The position includes a liberal start-up package in an environment with strong support in molecular biology and the neurosciences. Appointment is on a 12-month basis, salary is commensurate with experience, and the starting date is negotiable. Applicants should send curriculum vitae, a summary of research plans, and the names of at least three references to: **Stephen Zimmer, Ph.D., Department of Medical Microbiology and Immunology, University of Kentucky College of Medicine, 800 Rose Street, Lexington, Kentucky 40536-0084. The University of Kentucky is an Equal Opportunity Employer, M/F.**

POSITIONS OPEN

HUMAN OPIOID PHARMACOLOGY

Postdoctoral research fellowship available for laboratory studies in **human behavioral pharmacology** at the Johns Hopkins Medical School. Studies of opioid drug discrimination and antagonist sensitivity. Suitable for **pharmacologist, psychiatrist, or psychologist**. Two-year duration. Standard USPHS stipend: \$16,000 to \$22,000 and up. Send curriculum vitae and letter of interest to: **George E. Bigelow, Ph.D., D-5-West, Psychiatry Department, Johns Hopkins/Key Medical Center, Baltimore, Md. 21224.**

MANAGER—TISSUE PROCESSING LABORATORY. This supervisory position is in a high-volume quality- and service-oriented tissue processing (histopathology and electron microscopy) laboratory, with five full-time employees. Implementation of new ultrastructural and histologic techniques, and subsequent training of personnel will be ongoing managerial responsibilities. ASCP certification as a HT/HTL and a minimum of 5 years of relevant experience are required. Strong administrative and organizational skills are essential, including effective communication and interaction with people. This is a permanent, full-time position; salary commensurate with qualifications and abilities. Letters of application, curriculum vitae, and at least three letters of reference should be sent to: **Dr. C. W. Leathers, Washington Animal Disease Diagnostic Laboratory, P.O. Box 2037 C.S., Pullman, Wash. 99165; telephone: 509-335-9696. Washington State University is an Equal Opportunity/Affirmative Action Employer. We encourage minority, women, handicapped, Vietnam-era and disabled veterans, and aged persons to apply and identify themselves as such in their applications.**

MICROBIOLOGIST

Our manufacturing and R&D laboratory at West Chester, Pennsylvania—an antibiotics production facility—seeks an applications-oriented microbiologist to perform R&D work on laboratory and pilot plant scale. Responsibilities will include maintaining collection of microbial cultures, proving them by selection and genetic manipulation, and designing fermentation experiments in shake flasks and pilot size fermenters to study nutrition, growth, and product fermentation by microbes.

Qualifications sought: B.S. in microbiology, microbial biochemistry, or related field, M.S. preferred, and at least 2 years in microbiology, biochemical, bioengineering research, development laboratory, or pilot plant. Some experience in protein isolation preferred.

For prompt, confidential consideration, please send résumé with salary history to: **Wyeth Laboratories, Inc., Personnel Section, 611 East Nield Street, West Chester, Pa. 19382. An Equal Opportunity Employer, M/F/H. Responses encouraged.**

MOLECULAR GENETICIST. Search extended for assistant professor, Department of Animal Science, University of Minnesota, St. Paul, to develop molecular genetic/gene transfer systems in mammalian farm animals or ruminant bacteria. Position primarily research; 12-month, tenure-track appointment. Required: Ph.D. in a biological science; research in molecular genetics, and recombinant DNA technology. Since it is desirable for the candidate to have experiential knowledge of recent advances in DNA technology, candidates no more than 5 years post-Ph.D. will be given priority. Desired: training in genetics, immunology, embryology, or cell biology and technical competence in microscopy, microinjection, cytogenetics, and cell culture. Submit curriculum vitae with publication record, transcripts, research interest, and have three reference letters sent by 15 October 1985 to: **Dr. Kevin S. Guise, University of Minnesota, 495S AnSc/VM, 1988 Fitch, St. Paul, Minn. 55108. Telephone: 612-376-5673. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.**

POSTDOCTORAL POSITION to study the neural control of the circulation. Position open October 1985. Salary: \$17,000 to \$20,000, commensurate with experience. Projects include areas of neuropharmacology, neurophysiology, and biopsychology. Experience with various assays required: particularly those for catecholamines, renin, and vasopressin. Send curriculum vitae and names of three references to: **Dr. Marc A. Nathan, Department of Pharmacology, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, Texas 78284.**

POSITIONS OPEN

NEARSHORE PHYSICAL OCEANOGRAPHER

The University of North Carolina (UNC) at Chapel Hill, Institute of Marine Sciences, seeks a faculty member to develop an observational research program in coastal and estuarine dynamics. A tenure-track position with state supported salary and a rank of assistant or associate professor is available. Interested applicants should send a letter describing their research interests along with curriculum vitae and names of four references to: **Dirk Frankenberg, UNC Institute of Marine Sciences, Morehead City, N.C. 28557, by 15 September 1985.**

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

PLANT CELL BIOLOGIST. The Department of Biology, The University of North Carolina at Chapel Hill, invites persons analyzing cellular mechanisms in plant growth and/or development to apply for a tenure-track assistant professor position. Applicants developing independent research programs focused on significant problems in plant cell biology will be considered, regardless of particular techniques being employed. Applicants should send curriculum vitae, reprints of publications, a **ONE-PAGE** summary of research plans, and four letters of recommendation by 15 October to: **Plant Cell Biology Search Committee, Department of Biology, Coker Hall 010A, University of North Carolina, Chapel Hill, N.C. 27514. The University of North Carolina is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.**

POSTDOCTORAL FELLOW

A postdoctoral fellowship in cardiovascular physiology is available. The length of the appointment is approximately 2 years with a starting salary of \$14,500. The area of interest is neural control of the circulation. Applicants should submit curriculum vitae by 1 September 1985 to:

Irving H. Zucker, Ph.D.
Department of Physiology
University of Nebraska College of Medicine
42nd and Dewey Avenue
Omaha, Neb. 68105

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

POSTDOCTORAL FELLOWS (THREE)

Postdoctoral fellowships (three) are available to study the molecular basis of human disorders, in particular cystic fibrosis, Fanconi anemia, and multiple sclerosis. Individuals wishing to apply their training in molecular biology to problems of human genetic disease are especially encouraged to apply. Salaries are in the range of C\$20,000 and appointments are for 2 to 3 years. Send letters of application and curriculum vitae to: **Dr. M. Buchwald, Department of Genetics, or Dr. J. R. Riordan, Department of Biochemistry, Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, Canada M5G 1X8.**

POSTDOCTORAL POSITION available to study the electrophysiology of secretory cells of the intestinal immune system. We are interested in control mechanisms of stimulus secretion coupling. A background in electrophysiology and experience with the microelectrode technique are necessary. The stipend will be consistent with MRC guidelines and the position is available 15 September 1985. Please send curriculum vitae with references to: **Dr. J. D. Huizinga, Ph.D., Department of Neurosciences, Health Sciences Centre, Room 3NSC, McMaster University, Hamilton, Ontario, Canada L8N 3Z5; telephone: 416-525-9140, extension 2590.**

POSTDOCTORAL POSITION available immediately to study the synthesis and mechanism of action of immunotoxins; candidates should have a strong background in protein biochemistry. Send résumé and names of three references to: **Dr. Tom Oeltmann, Division of Oncology, A2127 Medical Center North, Vanderbilt University, Nashville, Tenn. 37232.**

Affirmative Action/Equal Opportunity Employer

POSTDOCTORAL POSITION IN MEMBRANE BIOCHEMISTRY to study the mechanism, structure, and regulation of the eukaryotic glucose transport system [see *J. Biol. Chem.* 260, 4575, and *Nature (London)* 315, 777]. For various aspects of this project familiarity with stopped-flow kinetics, protein chemistry, and/or monoclonal antibody methods is desirable. Please send curriculum vitae and names of references to: **Professor Gustav E. Lienhard, Department of Biochemistry, Dartmouth Medical School, Hanover, N.H. 03756.**

ASSOCIATE DEAN BASIC SCIENCES

The City University Medical School is an innovative baccalaureate/M.D. program emphasizing the selection of students from socially and economically disadvantaged backgrounds. One of the main aspects of the school is to train primary care physicians who will practice preventative and therapeutic medical care in underserved urban communities.

RESPONSIBILITIES: Coordination and implementation of Basic Science instruction, facilitation of Basic Science research and, with the faculty, the supervision of the academic performance of students in the Basic Sciences.

REQUIREMENTS: The successful candidate, M.D. or Ph.D., should have a distinguished academic career in one of the traditional disciplines of the Basic Sciences in medicine, demonstrated success in extramural funding, and a major interest in contemporary medical education and academic administration.

Salary and academic rank are commensurate with qualifications and experience.

Please forward curriculum vitae, no later than September 16, 1985 to: **Dr. Leonard E. Meiselas, Dean, The City University of New York Medical School,**



The City College of CUNY
Marshak Science Building/908
Convent Avenue at 138th Street
New York, NY 10031

An EO/AA Employer M/F

Scientific Staff Position Brookhaven National Laboratory

A key staff position is available in the Chemistry Department at Brookhaven National Laboratory for a PhD-level Nuclear Chemist or Physical Chemist to lead a long-term effort in radiochemical solar neutrino detection. This is to be a collaborative venture with Los Alamos National Laboratory, which will involve initial pilot scale development at Brookhaven, and lead to subsequent full-scale experimentation conducted at an underground location.

Candidates should have a record of accomplishment in the fields of nuclear or physical chemistry, and an interest in astrophysics. Some project management experience is required, and experience in low-level counting and electronics is highly desirable.

Candidates should apply by sending a resume, with publications list and names of three references, to:

A.P. Wolf, Chairman
Chemistry Department
Brookhaven National Laboratory
Associated Universities, Inc.
Upton, LI, NY 11973

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**BROOKHAVEN
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RESEARCH SCIENTISTS

Diagnostics

Amoco Corporation's Biotechnology Division is expanding its Bioanalysis Group devoted to the development of methods for the rapid diagnosis of infectious diseases and cancer. Recent advances of their nucleic acid probe program has created the need for additional Research Scientists.

New Positions Are Available For:

PROTEIN CHEMIST or ENZYMOLOGIST

Candidate must possess a background in protein conjugation and experience with enzymes that produce fluorescent or chemiluminescent reactions.

MOLECULAR BIOLOGIST

Extensive experience in nucleic acid hybridizations is required.

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Coordinator**

**AMOCO
RESEARCH CENTER**

**P.O. Box 400
Dept. JL-816
Naperville, IL 60566**

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POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP/RESEARCH ASSOCIATE

A postdoctoral position is open immediately for applicants possessing an advanced degree. A background in neurophysiology, neuropharmacology, or cardiovascular pharmacology and experience with electrical instrumentation and computers are desirable. Ongoing studies include investigations into the effect of anesthetic/analgesic agents on central autonomic control mechanisms for cardiovascular and thermoregulatory homeostasis. Other studies include the action of anesthetic agents on ischemic myocardium and the effects of anesthetic/analgesic agents on somatic and sensory CNS mechanisms in human volunteers in the surgical setting.

Please send curriculum vitae, including references, to:

William T. Schmeling, M.D., Ph.D.
Departments of Anesthesiology,
Pharmacology and Toxicology
Medical College of Wisconsin
8701 Watertown Plank Road
Milwaukee, Wis. 53226

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

The Laboratory of Experimental Oncology, Department of Pathobiology, College of Veterinary Medicine, University of Tennessee, Knoxville, is inviting applications for a **POSTDOCTORAL POSITION** for research on metabolism of chemical carcinogens in human and animal cells in vitro. Experience in basic in vitro techniques and biochemistry/pharmacology of enzyme-mediated xenobiotic metabolism required. Stipend: \$18,000 per annum. Send curriculum vitae and two letters of reference to: **Dr. H. M. Schuller, Department of Pathobiology, College of Veterinary Medicine, P.O. Box 1071, Knoxville, Tennessee 37901-1071.**

The University of Tennessee Institute of Agriculture is an Equal Opportunity/Affirmative Action/Title XI/Section 504 Employer.

A **POSTDOCTORAL POSITION** is available for a suitable, qualified applicant interested in studying the role of viral oncogene expression in leukemogenesis. Applicants should have experience in molecular biology and an interest in immunobiology. The research program of the Trudeau Institute emphasizes the use of animal models of cancer and infectious disease to analyze mechanisms of protective immunity. The starting salary in 1985 is \$16,000 plus a liberal fringe benefit package. Subsidized housing is available.

The Trudeau Institute is a not-for-profit, pure research institute located on the shore of Saranac Lake, 10 miles from Lake Placid, N.Y. Send résumé and names of three references to:

David Hines, Ph.D.
Trudeau Institute
P.O. Box 59
Saranac Lake, N.Y. 12983

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POSTDOCTORAL POSITION available immediately in the Department of Medicine, Montefiore Hospital, University of Pittsburgh. Protein chemist/biochemist to participate in purification of human and primate testicular peptides by HPLC, affinity chromatography, and so forth, for subsequent immunological and physiological studies of male reproductive endocrine function. Salary negotiable. Send curriculum vitae, containing names of three references, and a statement of research interests and experience to: **Hugh S. Keeping, Ph.D., Department of Medicine, Montefiore Hospital, 3459 Fifth Avenue, Pittsburgh, Pa. 15213.**

POSTDOCTORAL POSITION available after 1 October for work on ornithine decarboxylase regulation in *Neurospora*, using pure enzyme and polyclonal antibodies now available, together with mutational enzyme variants. Background in biochemistry and handling of proteins desirable. Send résumé and letters of reference to: **Dr. Rowland Davis, Department of Molecular Biology and Biochemistry, University of California, Irvine, Calif. 92717; telephone: 714-856-5356. An Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION (2 to 3 years) available immediately for molecular biologist to study gene regulation of retinoid binding proteins. Experience with recombinant DNA techniques necessary. Send résumé and names of three references to: **Dr. C. David Bridges, Department of Ophthalmology, Cullen Eye Institute, Baylor College of Medicine, Houston, Texas 77030.**

**RUTGERS UNIVERSITY
FOOD SCIENCE DEPARTMENT
COOK COLLEGE
NEW BRUNSWICK, N.J. 08903
Postdoctoral Position**

Available 1 September 1985 to study membrane-bound enzymes involved in plant cell wall biosynthesis. Background in enzyme purification and polysaccharide chemistry desirable. Send curriculum vitae and names of three references to: **Dr. Bruce P. Wasserman, Department of Food Science, Rutgers University, New Brunswick, N.J. 08903. Telephone: 201-932-9668. Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS to study the interaction of plasma steroid-binding proteins with cell membranes. The applicants should have a Ph.D. and experience in membrane biochemistry and/or receptor physiology and biochemistry. We have one opening now and another in January 1986. Send curriculum vitae and references to: **Dr. William Rosner, Department of Medicine, St. Luke's/Roosevelt Hospital, Columbia University, 428 West 59 Street, New York, N.Y. 10019. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION—Immediate opening for a molecular biophysicist to work on the structural, dynamic, and thermodynamic characterization of nucleic acid junctions [*Nature* 305, 829]. Physical and biochemical studies are currently under way in a laboratory equipped with an automatic oligonucleotide synthesis capability. Requirements are a Ph.D. in chemistry, biochemistry, molecular biology, or a related area. Salary range: \$18,000 to \$23,000. Send curriculum vitae and names of three references to: **Dr. Nadrian C. Seeman, Department of Biological Sciences, State University of New York (SUNY)/Albany, Albany, N.Y. 12222. SUNY is an Affirmative Action/Equal Opportunity Employer. Applications from minority persons, women, handicapped persons, and Vietnam veterans are especially welcome.**

POSTDOCTORAL POSITION available fall 1985 to study radiolabeled monoclonal antibodies for in vivo tumor imaging and therapy in tumor-bearing nude mice and patients with B-cell lymphoma or colorectal cancer. Determine stability, affinity, immunoreactivity, and biodistribution of radiolabeled antibodies and antibody fragments. Applicants should have a strong background in biochemistry, biology, immunology, or immunochemistry. Experience in immunological methods of protein purification and modification, cell culture, hybridoma production, radiolabeling, and handling radioactivity also desirable. Send curriculum vitae, reprints, and names and addresses of three references to: **Donald J. Buchsbaum, Ph.D., Department of Radiation Therapy, The University of Michigan Medical School, Room X3003, Box 56, Ann Arbor, Michigan 48109. The University of Michigan is a nondiscriminatory, Affirmative Action Employer.**

POSTDOCTORAL POSITIONS available immediately to participate in ongoing studies involving the organization of dengue virus type 2 RNA genome using cDNA cloning, sequencing and expression of the viral genes in *Escherichia coli*. Ph.D. degree in biochemistry or microbiology is required. Research experience or knowledge in molecular biology is desirable but not essential. Salary is \$16,000 to \$20,000, depending on experience. Send curriculum vitae and names of three references to the following: **Dr. Radha Padmanabhan, Associate Professor Department of Biochemistry, University of Kansas Medical Center, 39th and Rainbow Boulevard, Kansas City, Kans. 66103.**

POSTDOCTORAL RESEARCH ASSOCIATE available immediately. NIH-sponsored project to isolate and characterize the tyrosine aminotransferase gene from *Drosophila*. Cloned rat TAT probe will be employed to isolate *Drosophila* gene from library. Some DNA recombinant experience desirable. Salary: \$17,000 to \$20,000, depending on experience. Send curriculum vitae and three letters of reference to: **Dr. Tom Brady, Biology Department, Hamilton College, Clinton, N.Y. 13323. Equal Opportunity Employer.**

POSITIONS OPEN

A **POSTDOCTORAL POSITION** is available for the study of molecular mechanisms of DNA repair and mutagenesis. The project will make use of in vitro systems for the repair, replication, and packaging of bacteriophage T7 DNA. Candidate should have training in genetics or biochemistry. Experience with recombinant DNA techniques and DNA sequencing is desirable. The appointment is available immediately and can be continued for up to 3 years. Interested candidates should send curriculum vitae and the names of three references to: **Dr. Warren Masker, Department of Biochemistry, Temple University School of Medicine, Philadelphia, Pa. 19140. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION (plant molecular biology) in the Department of Biochemistry, University of Arizona, Tucson. Candidates are encouraged to apply who have experience in recombinant DNA techniques and/or a background in cellular biology and biochemistry. The position is funded for research on the expression of stress-induced metabolic pathways in an as yet only physiologically studied plant, *Mesembryanthemum*. Send curriculum vitae, statement of interests, and three references to: **Dr. Hans J. Bohnert, University of Arizona, Department of Biochemistry, Biosciences West, Tucson, Ariz. 85721. Telephone: 602-621-7961. The University of Arizona is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE CENTRAL AUTONOMIC MECHANISMS

Position available for electrophysiological studies on the role of the CNS in the genesis and control of sympathetic nerve activity. Applicants should be seeking training in neurophysiology and neuropharmacology at the single cell level. Salary and title based on qualifications. Send curriculum vitae and names of three references to:

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

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POSTDOCTORAL RESEARCH ASSOCIATE available immediately to study the structure and function of the digitalis receptor; with opportunity to do limited teaching. Ph.D. in biochemistry and background in protein chemistry and enzyme kinetics required. Send résumé and names of three references to: **Administrative Assistant, Department of Pharmacology, Medical College of Ohio, Toledo, Ohio 43699. The Medical College of Ohio is an Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATES MICROBIOLOGY—MOLECULAR BIOLOGY

Two postdoctoral research associate positions available immediately. Ph.D. in microbiology, genetics, or food science/microbiology with experience desired in molecular biology, gene-cloning, and gene expression. Research area involves localization, cloning, and expression of genes located in conjugal plasmids which confer bacteriophage resistance to lactic streptococci used for dairy fermentations. Send résumé, transcripts, and three letters of recommendation to: **Dr. Todd R. Klaenhammer, Department of Food Science, North Carolina State University, Raleigh, N.C. 27695-7624. Affirmative Action/Equal Opportunity Employer.**

ARS POSTDOCTORAL RESEARCH ASSOCIATE. Plant physiologist/biophysicist to conduct research on photochemical reactions of photosystem II in higher plants and green algae. Heterogeneity in antenna-pigment aggregation, kinetics of charge transfer, and quinone acceptors will be studied. Appointment is for 1 year with possible renewal for second. Salary is \$26,381 per year. Applicants must be U.S. citizens who received Ph.D. within past 2 years. Send résumé and names of three references to: **Dr. Paul Jursinic, Northern Regional Research Center, U.S. Department of Agriculture (USDA), Agricultural Research Service, 1815 North University Street, Peoria, Ill. 61604. USDA is an Equal Opportunity Employer.**

POSTDOCTORAL/RESEARCH ASSOCIATE

To study the pharmacologic and molecular basis for the development of differentiation therapy as a cancer treatment. Send résumé, names and addresses of references, and a summary of research interests to: **Dr. Samuel Waxman, Chemotherapy Foundation Laboratory, MOUNT SINAI MEDICAL CENTER, One Gustave L. Levy Place, New York, N.Y. 10029. An Equal Opportunity Employer.**

STAFF OFFICER

HEALTH EFFECTS OF INTERNALLY DEPOSITED ALPHA-EMITTING RADIONUCLIDES

The Commission on Life Sciences of the National Research Council seeks a staff officer to assist in planning and executing a study of the effects of alpha radiation on human health and genetics. The successful applicant will serve as full time staff officer for a committee of 10 to 15 expert volunteers over a period of 12 to 15 months. Applicants should have a Ph.D. or M.D. degree, or equivalent experience, in a field related to radiation biology. At least 5 years of experience in conducting and managing sponsored research programs is required. Applicant should be able to demonstrate an ability to facilitate a complex research program involving multiple disciplines and science closely linked to difficult risk-management decisions. Ability to direct and motivate work by both volunteer committee members and support staff is essential. Applicant should also be skilled in communicating with sponsors and the general public in both written and oral presentations. Send curriculum vitae or professional biography and letter of interest to:

Dr. Stephen L. Brown
Staff Director

Board on Radiation Effects Research National Research Council

2101 Constitution Avenue, N.W.
Washington, D.C. 20418

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Natural Sciences and Engineering
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RESEARCH FELLOWSHIPS

1986

The Natural Sciences and Engineering Research Council of Canada (NSERC) offers research fellowships to expand career opportunities for a select number of very promising researchers in the natural sciences and engineering. These awards are tenable in universities or industries in Canada commencing in 1986.

- | | |
|--------------------------------|--|
| Eligibility | Canadian citizens or permanent residents of Canada holding a doctorate in science or engineering, preferably with post-doctoral research experience of not more than five years. |
| Nature of Appointment | Fellows will be employees of the university or industrial firm for the duration of the award and will be engaged in research, development, or innovation activities. |
| Duration of Appointment | a) University Research Fellowships: Up to five years based on satisfactory performance; possibility of renewal for a second 5-year term.
b) Industrial Research Fellowships: Up to three years based on satisfactory performance. |
| Remuneration | a) University Research Fellowships: Salary is determined by the university; NSERC will reimburse the university up to \$30,500 per annum towards the cost of each fellow's salary; fellows will receive a three-year research grant.
b) Industrial Research Fellowships: Salary is determined by the industrial firm; NSERC will reimburse the university up to \$25,900 per annum towards the fellow's salary. |
| Application Procedures | Contact the Canadian university or industrial firm of your choice to carry out appropriate negotiations concerning research plans, terms and conditions of appointment, salary, etc. Nominations must be submitted to NSERC by universities or industrial firms, as the case may be. Applications submitted directly to NSERC by candidates cannot be accepted. |
| Date of Submission | a) 1 November 1985 for University Research Fellowships
b) anytime for Industrial Research Fellowships |

For more information, contact the:

Research Fellowships Officer
Natural Sciences and Engineering Research Council
200 Kent Street, Ottawa, Ontario, Canada K1A 1H5
Telephone, (613) 996-2009

Canada

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Applied bioTechnology, a growing company specializing in:

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UNIVERSITY OF GUELPH Industrial Research Professorship CHAIR in Plant Molecular Biology

The University of Guelph is seeking an established scientist with an international reputation to occupy the **NSERC-Allelix Industrial Research Professorship Chair in Plant Molecular Biology**. The occupant will be expected to provide leadership and to conduct research in plant molecular biology relative to plant biotechnology, and to interact with industry and government. The successful candidate is expected to be housed in the College of Biological Sciences with a cross-appointment in the Ontario Agriculture College and the Plant Biotechnology Centre. The University of Guelph is noted for its traditional strengths in the agricultural and biological sciences. Faculty in eight different departments are involved in plant biotechnology research from the molecular to the applied aspects at Guelph and interact with faculty at the University of Waterloo through Guelph-Waterloo Biotech. The University of Guelph, with about 11,000 students, is located 50 minutes west of Toronto and within 2 hours drive of seven other universities.

The chair is funded under the NSERC Chair program with Allelix Inc. as the industrial partner. It also carries a tenured University faculty appointment for the occupant in either molecular biology and genetics or botany. In addition to the chair salary which will be negotiated, funds for research associates, technical help, and equipment have been included. The chairperson will also be eligible to seek additional grants and contracts.

Please send curriculum vitae, names and addresses of at least three referees, and an outline of research interests to:

Dr. Ken J. Kasha
Director, Plant Biotechnology Centre
Guelph-Waterloo Biotech
University of Guelph
Guelph, Ontario, Canada N1G 2W1
Telephone: 519-824-4120, extension 8773

Applications should be submitted as soon as possible and all qualified applicants will be considered. *The University of Guelph is an Equal Opportunity Employer, but priority will be given to Canadian citizens and permanent residents.*

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POSITIONS OPEN

POSTDOCTORAL POSITION HUMAN MITOCHONDRIAL GENETICS AND MOLECULAR BIOLOGY

Positions are available at Emory Medical School to study the molecular biology and genetics of the human mitochondrion and the role of mitochondrial genes in human evolution, genetic disease, and cancer. Mitochondrial genes located in both the nuclear and mitochondrial DNA's are being examined by approaches including gene cloning, DNA sequencing, restriction site variation, cell fusion, cell fractionation, and gene transfer. Interested individuals should send curriculum vitae and names of three referees to:

Douglas C. Wallace, Ph.D.
Professor of Biochemistry
Woodruff Memorial Building
Emory University School of Medicine
Atlanta, Georgia 30322

POSTDOCTORAL RESEARCH ASSOCIATE

Positions are available for postdoctoral research fellows in molecular virology. Salary is in the range of \$16,000 to \$20,000, depending on experience. Candidates may work in the area of microbiology, pathology, biochemistry, or cell biology as it relates to the study of DNA viruses and/or vascular disease. Interested applicants should send curriculum vitae and names and addresses of three references to:

Dr. Kenneth I. Berns, Department of Microbiology or
Dr. David P. Hajjar, Department of Pathology
Cornell University Medical College
1300 York Avenue
New York, New York 10021

The New York Hospital-Cornell Medical Center is an Equal Opportunity Employer.

POSTDOCTORAL/RESEARCH ASSOCIATE position available to study RNA processing in animal cells and viruses. Background either in biochemistry, microbiology, or molecular biology needed. Experience in recombinant DNA technology desirable. Salary negotiable. Send résumé with two names for references to: Dr. Mary Edmonds, Department of Biological Sciences, University of Pittsburgh, Pittsburgh, Pa. 15260. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH POSITION available immediately for a minimum of 3 years to study cell surface phenotype, DNA content, and kinetic properties of lymphoma cells using the flow cytometer as the main analytical instrument. Independent research in related areas such as lymphoma growth regulation and differentiation, and anti-idiotypic antibody production will be encouraged. At least 2 years of experience in cell biology and/or cellular immunology is required. Stipend commensurate with experience. Please send curriculum vitae and names of references to: Raul C. Braylan, M.D., Professor, Department of Pathology, Box J-275, JHMC College of Medicine, University of Florida, Gainesville, Florida 32610.

POSTDOCTORAL RESEARCH POSITION available immediately to study the hormonal regulation of glutamine synthetase gene expression in cultured 3T3-Li adipocytes [see R. Miller *et al.*, *JBC* 25B, 5405 (1983); *Curr. Top. Cell. Regul.* 26, 65 (1985); and *Fed. Proc.* 44, abstract number 6023 (1985)]. Recent Ph.D. in biochemistry or molecular biology preferred. Send curriculum vitae and references to: Richard E. Miller, M.D., Associate Professor of Medicine and Biochemistry, Metabolism Section, Department of Medicine, VA Medical Center, and Department of Biochemistry, Case Western Reserve University, 10701 East Boulevard, Cleveland, Ohio 44106. Telephone: 216-791-3800, extension 4825.

Ecogen Inc., an expanding biotechnology company located near Princeton, N.J., and specializing in microbial pesticide development, expects to have several staff openings for both **RESEARCH SCIENTISTS** (Ph.D. required) and **RESEARCH ASSISTANTS** beginning in November 1985. Areas of expertise and training desired are bacterial genetics and physiology (especially with *Bacillus* species), gene cloning and characterization, insect physiology, immunology (especially hybridoma research), protein chemistry, formulations chemistry, fungal genetics, and physiology. Interested applicants send résumé and names and addresses of three references to:

Dr. Bruce Carlton
Vice President for Research and Development
Ecogen Inc.
P.O. Box 6818
Lawrenceville, New Jersey 08648

POSITIONS OPEN

POSTDOCTORAL TRAINING FELLOWSHIP IN CLINICAL/BIOLOGICAL ALCOHOL STUDIES. NIAAA-funded postdoctoral program for M.D.'s and Ph.D.'s. Comprehensive training in alcohol research and participation in on-going projects investigating neuroendocrine, psychophysiological, and behavioral concomitants of alcoholic drinking behavior. Possibility also exists for the parallel development of appropriate animal models. Please send curriculum vitae and description of research interests along with the names of three references to: Zel Dolinsky, Ph.D., University of Connecticut Health Center, Department of Psychiatry, Farmington, Conn. 06032. *An Affirmative Action/Equal Opportunity Employer, M/W/H.*

POSTGRADUATE RESEARCH ZOOLOGIST position available 1 January 1986 for 1 year with possible extension. Ph.D. with experience in muscle cell culture and in biochemistry of growth factors, including isolation and purification of growth factors on various columns, assay of growth factor, supervision of peptide mapping and amino acid analysis of growth factors and of amino acid sequencing of growth factors, preparation of monoclonal antibodies to growth factors. Identification of inhibitors present in muscle tissue. Salary (\$19,200 to \$23,900) commensurate with experience. Send curriculum vitae to: Dr. Richard Strohmman, Zoology Department, University of California, Berkeley, Calif. 94720, by 1 October. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE position available immediately. Salary: \$25,000. To work on transposable elements in mammalian genomes. Experience in recombinant DNA or protein purification desirable. Please contact:

Craig H. Duncan, Ph.D.
Room IDR 721
Children's Hospital Research Foundation
Cincinnati, Ohio 45229

RESEARCH ASSOCIATE

Ph.D. with background in cell biology and/or biochemistry, to investigate cellular interaction with growth factors and extracellular matrix with emphasis on human vascular cells. Experience in protein chemistry, cell culture, and immunochemistry desirable. Exciting opportunity for a creative individual. Salary competitive. Send curriculum vitae, names of references, and reprints (if applicable) to: Dr. Robert Weinstein, Department of Biomedical Research, St. Elizabeth's Hospital of Boston, 736 Cambridge Street, Boston, Mass. 02135. *An Equal Opportunity Employer.*

RESEARCH ASSOCIATE POSITIONS. Positions are now available to study the mechanisms by which peptides obtained from eggs stimulate and/or attract spermatozoa using the sea urchin as a model system. Positions are also available to pursue similar studies in higher animals including the mammal. Stipends will be commensurate with experience. Please send curriculum vitae and references to: Dr. David L. Garbers, Howard Hughes Medical Institute at Vanderbilt University Medical Center, 711 Light Hall, Nashville, Tenn. 37232.

Office of IR-4, The New Jersey Agricultural Experiment Station, Rutgers-The State University of New Jersey, has the following position available:

Position 102—RESEARCH PROFESSOR (weed science/residue chemistry). Full-time, grant-funded, nontenured position in the National Office of the IR-4 Project. Duties include reviewing field and laboratory research data, writing petitions for submission to EPA/FDA, and developing protocols for pesticide clearance research. A Ph.D. or equivalent experience in agricultural sciences, biology, or chemistry with a strong background in weed/crop science, pesticide residue/metabolism, registration procedures, and microbiology. Salary commensurate with qualifications and experience.

Applicants should state the number of the position they are applying for and should send curriculum vitae and three letters of reference to:

Dr. R. H. Kupelian, National Director
Office of IR-4
New Jersey Agricultural Experiment Station
Cook College
Rutgers University
New Brunswick, N.J. 08903
Telephone: 201-932-9575

Rutgers, The State University of New Jersey, is an Equal Opportunity/Affirmative Action Employer.

Postdoctoral Scientist Experimental Pathology

The Department of Experimental Pathology at Smith Kline & French Laboratories is seeking a Postdoctoral Scientist to engage in a collaborative research investigation of the responses of vascular smooth muscle to injury in rat model systems of arterial injury. The successful candidate will be encouraged to interact with scientists in other departments at SK&F and in the scientific community at large, to publish work in leading scientific journals, and to present research findings at scientific meetings. The appointment is for one year, renewable for a second year upon mutual agreement.

The successful candidate will:

- characterize, *in vitro* and *in vivo*, the pharmacologic responses of vascular smooth muscle following acute and chronic arterial injury;
- investigate the pharmacologic basis of changes in the expression of receptor phenotypes by vascular smooth muscle during arterial regeneration and repair.

Candidates are required to have:

- a Ph.D. in Pharmacology, Biochemistry, or a related discipline.
- 0-3 years postdoctoral research experience.
- proven research ability and an interest in relating the pharmacologic/biochemical responses of vascular smooth muscle to injury in animal models of arterial disease.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your resume and names of three references to: Mr. Walter B. Flagg, Senior Employment Consultant, SMITHKLINE BECKMAN CORPORATION, 1570 Spring Garden Street, Phila., PA 19101. We are an equal opportunity employer, M/F/H/V.

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Postdoctoral Scientist Immunopathology

SmithKline Beckman, a world leader in health care and technology is seeking a Postdoctoral Scientist to join the Department of Experimental Pathology, located in suburban Philadelphia, PA, and an interdisciplinary research program in an environment designed to foster creative, innovative research and to promote personal and professional growth.

We consider postdoctoral studies to be of major importance in an individual's career and encourage publication of findings in leading journals and full interaction with the scientific community.

Our postdoctoral appointments are of 1 year duration and with mutual agreement renewable for a 2nd year.

The successful candidate will:

- investigate the role of interleukin-1, fibronectin and macrophage derived growth factor in pulmonary fibrosis.
- investigate the effects of pharmacological modulation of macrophage secretion of these mediators on fibroblast proliferation.
- work in an established collaborative research setting within the Department of Experimental Pathology and the Department of Immunology.

Candidates are required to have:

- a Ph.D. in Immunology, Experimental Pathology or Microbiology.
- 0-2 years postdoctoral research experience.
- experience with *in vitro* macrophage methodology.
- demonstrated excellent oral and written communication skills.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your resume and names of three references to: Mr. Walter B. Flagg, Senior Employment Consultant, SMITHKLINE BECKMAN CORPORATION, 1576 Spring Garden Street, Phila., PA 19101. We are an Equal Opportunity Employer, M/F/H/V.

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Biopolymer Research

- Senior Scientist
- Associate Scientist

Hoffmann-LaRoche, an established leader in the pharmaceutical and healthcare industries, has two excellent career opportunities for individuals experienced in the purification of a variety of both natural and recombinant proteins:

- **Senior Scientist**—To work on purification of small- to intermediate-scale quantities of proteins, including conducting research on the development of purification methods, structure and functional characterization, and chemical modifications for new drug development programs. Requires a PhD in Biochemistry (or in Chemistry with directly related experience) and 4 years postdoctoral work in the protein analysis field. Specialized knowledge needed includes: established protein isolation methodology, chemical modification of proteins, immobilization of enzymes and/or antibodies, or characterization of glycoproteins.

- **Associate Scientist**—To contribute to research efforts focused on the development of novel analytical or purification methods of proteins. Requires a Bachelor's degree in Biochemistry or a related field (MS preferred) with 3 years experience as a bench chemist and the ability to handle multiple high-priority projects simultaneously. Hands-on experience with SDS-PAGE, "Western" blotting and the HPLC of proteins desirable.

You'll be working with the Roche Research Center, which is located in a suburban setting 10 miles from New York City. Roche offers a very competitive compensation package and a research environment that encourages scientific growth. Please send your curriculum vitae, indicating past, current and future research interests to: Ms. Fran Newman



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POSITIONS OPEN

Department of Nutritional Sciences POSITION AVAILABLE

POSTDOCTORAL RESEARCH BIOCHEMIST to work with principal investigator on biochemical reactions of folic acid and vitamin B-12. Ph.D. degree or equivalent in nutrition or biochemistry or related field, should have background in general biochemical work and enzymatic assays. Previous experience in the folic acid field is desirable. Salary: \$19,212 to \$20,040 per year, depending on qualifications. Starting date: 1 September 1985 (initial appointment for 12 months; reappointment subject to availability of funds). Application deadline: 16 September 1985 or until filled, whichever is later. Send curriculum vitae and names and addresses of three references to: **Dr. E.L.R. Stokstad, Department of Nutritional Sciences, University of California, 131 Morgan Hall, Berkeley, Calif. 94720. The University of California is an Equal Opportunity/Affirmative Action Employer.**

SENIOR RESEARCH DIRECTOR for biotechnology firm. Biological sciences Ph.D. and 10 years of experience in industrial R&D preferred. Should have managerial experience of multiple projects, including supervision of senior scientists. Knowledge of agricultural biologics and diagnostics desirable. Responsibilities include: produce needs for animal and plant health, establishing contracts with agricultural research institutions, establish and monitor MBO's for research projects, product clearances, or patent filings. Send inquiry and response to: **Personnel Director, 241 East Saginaw, Suite 517, East Lansing, Mich. 48823.**

Applications are invited for a **SENIOR SCIENTIST** position in the Cell Culture Laboratory. We seek a **SENIOR SCIENTIST** to investigate the cell biology of mammalian cell culture scale-up in an active R&D setting encouraging publication. Research will focus on the cell biology aspects of the mammalian cell expression of recombinant DNA-derived proteins. Candidates should have experience with mass cell culture of lymphoid and adherent cells, including microcarrier technology. Research experience in one of the following areas will be required: proteases produced by cultured cells, serum-free media, or glycoprotein biosynthesis and processing in cultured cells. Applicants must possess a Ph.D. and 2 years of experience in an industrial research or production setting, or postdoctoral training. Send curriculum vitae, brief statement of research interests (optional), and names of three professional references to:

**Revlon Health Care/Meloy Laboratories, Inc.
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SENSORY NEUROBIOLOGIST

The Department of Neurobiology and Physiology at Northwestern University is seeking applications for a faculty position, at the level of professor or associate professor in the general area of sensory neurobiology. The successful candidate will have a strong, well established program of research, preferably in developmental or cellular/molecular neurobiology dealing with one of the sensory systems.

The Department of Neurobiology and Physiology has strong, well-funded groups in sensory neurobiology and in neuroendocrinology, both representing multidisciplinary approaches to these areas of neuroscience. The department currently administers a Ph.D. program; two NIH training programs are centered in the department. The department also has an undergraduate major leading to a B.A., and a B.A./M.S. honors program for exceptional undergraduates.

Interested persons should submit curriculum vitae and the names of three persons who can provide references to: **Dr. Albert I. Farbman, Department of Neurobiology and Physiology, Northwestern University, Hogan Hall, Evanston, Ill. 60201.**

Northwestern University is an Equal Opportunity/Affirmative Action Employer.

VISION RESEARCH SCIENTIST

Growing retina foundation offers independent research position for Ph.D. with background in human visual electrophysiology and/or psychophysics. Postdoctoral experience required, preferably with clinical exposure. Salary commensurate with experience and demonstrated productivity. Send curriculum vitae to: **Vision Research Center, Retina Foundation of the Southwest, 8220 Walnut Hill Lane, Suite 012, Dallas, Texas 75231.**

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POSITIONS OPEN

RESEARCH INVESTIGATOR

Position in a university biochemistry department involving molecular and genetic analyses of *Trypanosomes*. A Ph.D. in cytogenetics, training in molecular biology, and publications in peer-reviewed journals are required. The applicant should have expertise in cytogenetic analysis of eukaryotic chromosomes, in vitro culture techniques, recombinant DNA procedures such as cDNA and genomic DNA library construction and screening in phage and plasmids, DNA sequencing by chemical cleavage and dideoxy techniques, and in vitro transcription assays. Salary: \$18,000 per year; 40 hours per week. Send résumé and two letters of reference to: **Iowa Job Service, 1810 Lower Muscatine Road, Iowa City, Iowa 52244. Job Order Number 1581297.**

GS-9/11/12 Civil Service Position STATISTICIAN/EPIDEMIOLOGIST/ COMPUTER PROGRAMMER

The Centers for Disease Control is recruiting for statisticians, epidemiologists, and computer programmers to manage/conduct research in occupational safety including the design, implementation, and analysis of new and ongoing research efforts. Candidates with master's or Ph.D. degrees in the field are preferred. Salary ranges from \$21,804 to \$31,619, based on experience and qualifications. Send résumé and Standard Form 171 to: **Jenny P. Garner, Centers for Disease Control, 1600 Clifton Road, Atlanta, Ga. 30333. For further information, telephone: 404-236-3613. An Equal Opportunity Employer.**

TUMOR IMMUNOLOGY

The Institutes for Immunobiology and Molecular Immunology at **THE CENTER FOR MOLECULAR MEDICINE AND IMMUNOLOGY** seek individuals with a commitment to excellence in research and a history of extramural funding for positions at the junior and senior scientist levels. Special consideration will be given to those individuals with interest in tumor immunity, tumor antigen immunochemistry, tumor imaging and therapy, and tumor biology. Salary commensurate with experience and credentials. Eligibility for adjunct faculty appointment. Applications, to include curriculum vitae, bibliography, a statement of career and research goals, and the names of three references, should be sent to: **Dr. David M. Goldenberg, President, CENTER FOR MOLECULAR MEDICINE AND IMMUNOLOGY, University of Medicine and Dentistry of New Jersey, 100 Bergen Street, Newark, N.J. 07103. An Equal Opportunity Employer.**

WATERSHED SCIENTIST to be appointed for 24 months in the Department of Range Science at Utah State University at the rank of research assistant professor or research associate professor, with the possibility of conversion into a tenure-track position. Duties include teaching an undergraduate course in watershed management and a more advanced course in a specific area of interest; advising both graduate and undergraduate students. Applicants also should be prepared to teach one or more courses in the range science curriculum. Develop an extramurally funded research program on the movement of water through rangeland ecosystems and cooperate with other faculty in research projects. Research should be related to grazing and to the rehabilitation of degraded rangelands. Applicants must have a Ph.D. with doctoral research in watershed management, water budgets, or soil-plant relations. A solid grounding in range ecology and a commitment to the principles of multiple-use resource management are desirable. Must be willing to do research in multidisciplinary teams. Send a résumé, transcripts of undergraduate and graduate work, a statement of research interests and relevant reprints, and three letters of recommendation by 30 August 1985 to: **Dr. B. E. Norton, Watershed Search Committee, UMC 52, Utah State University, Logan, Utah 84322. Applications accepted until position filled. An Affirmative Action/Equal Opportunity Employer.**

ZOOLOGIST, BOTANIST, AND PLANT ECOLOGIST positions, Helena, Montana. Data base and field oriented; advanced degree required; knowledge of Northern Rockies fauna, flora, or vegetation, respectively, preferred. Closing date: 30 August 1985. Please request detailed job description from: **Rocky Mountain Heritage Task Force, Attention: MTNHP, 1370 Pennsylvania Street, Room 190, Denver, Colo. 80203. THE NATURE CONSERVANCY—Equal Opportunity Employer.**

SYMPOSIUM

ELECTROPOLLUTION SYMPOSIUM at the Howard Inn, Washington, D.C., 9 September 1985. Active workers in radiofrequency/microwave radiation biology invited to submit abstracts for oral presentation. Best five invited; travel and hotel paid. Proceedings to be published. No fee but preregistration required. Attendance limited. Nonpresenters invited. Send abstracts/inquiries by 30 August to: **ELECTROPOLLUTION SYMPOSIUM, Howard University, Administration Building, P.O. Box 83, Washington, D.C. 20059.**

TRAINING PROGRAM

POSTDOCTORAL TRAINING PROGRAM. One postdoctoral position will be available, commencing 1 January 1986, at Michigan State University in an NIH-supported training program in the combined fields of pathology and environmental toxicology. Applicants should have a D.V.M., M.D., or D.O. degree and be willing to undertake training leading to a dual Ph.D. in pathology/environmental toxicology. Preferences will be given to candidates who have advanced training in pathology. Deadline for applications is 1 October 1985. Stipends will be based on NIH postdoctoral levels. More complete description of the program is available upon inquiry. Please address letters of application with three letters of reference to: **Dr. R. W. Leader, Program Director, Department of Pathology, A620 East Fee Hall, Michigan State University (MSU), East Lansing, Michigan 48824. MSU is an Affirmative Action/Equal Opportunity Institution.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS IN NEUROPHARMACOLOGY at St. Louis University School of Medicine are available immediately through a NINCDS training grant. Research encompasses an emphasis on neurotransmitter and neuropeptide biochemistry, physiology, and pharmacology. Open to U.S. citizens or permanent residents with a M.D., Ph.D., or equivalent degree. Send curriculum vitae and three letters of reference to: **Dr. Thomas C. Westfall, Department of Pharmacology, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, Mo. 63104, or telephone 314-664-9800, extension 551. St. Louis University is an Equal Opportunity Employer.**

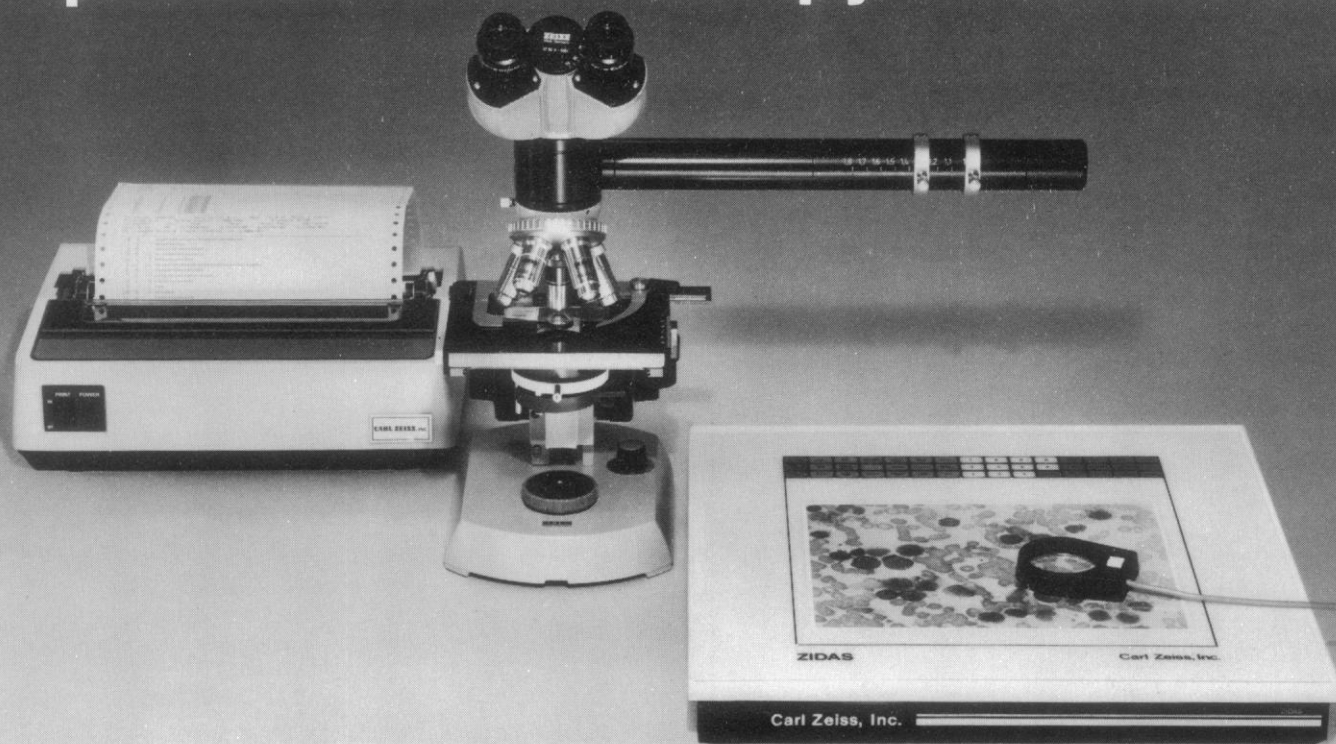
POSTDOCTORAL FELLOWSHIP IN PAIN RESEARCH at the University of California, San Francisco, in the Departments of Pharmacology, Anatomy, or Physiology. Background in electrophysiology, anatomy, or pharmacology preferred. Contact: **Dr. Howard L. Fields, M-794, University of California, San Francisco, Calif. 94143. Fellowships limited to U.S. citizens or permanent residents. The University of California is an Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIPS IN DIFFERENTIATION AND FUNCTION OF TRANSPORTING EPITHELIA Available after 1 September at CORNELL UNIVERSITY, Ithaca, N.Y.

Academically oriented holders of D.V.M., M.D., and/or Ph.D. degrees who are U.S. citizens may apply for 1- to 3-year program. Emphasis on any aspect of differentiation and function of transporting epithelia, particularly gastrointestinal or renal, using various techniques including cell and tissue culture, monoclonal antibody localization of differentiation-dependent antigens, localization of intracellular ions using specific ion electrodes or ion-specific fluorescent probes, various techniques for measurement of molecular or ionic transport in tissues, cells or vesicles and endocrine or pharmacologic regulation of differentiation and transport. Superbly equipped laboratories available for modern research investigations at the molecular, cellular or whole animal level(s). Candidates should be able to demonstrate a strong research background and/or commitment to a research career. Salary support dependent on background and experience at NIH scale. Send curriculum vitae, summary of research experience and interests, and addresses of three references to: **Dr. R. H. Wasserman, Professor and Chair, Department/Section of Physiology, Room 717 VRT, New York State College of Veterinary Medicine, Cornell University, Ithaca, N.Y. 14853.**

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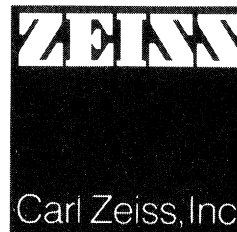
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