

Grossberg; and "Mathematical models of circadian one- and multi-oscillator systems" by Wever. Each paper is preceded by an abstract, and there is a brief preface by Carpenter.—K.L.

Nutritional Anthropology. FRANCIS E. JOHNSTON, Ed. Liss, New York, 1987. x, 304 pp., illus. \$49.50.

Nutritional Anthropology, to quote the publisher's advertisement, "focuses primarily on the adaptive (or maladaptive) interactions of food and nutrition with human biological systems, culture, and environment." It is further characterized by the editor as providing "a picture of [the field of] nutritional anthropology as seen by a sample of those working actively" in it. The opening section of the volume, Evolution, Adaptation, and Variation, consists of papers on human diet in prehistory (Kathleen D. Gordon) and the utility of an evolutionary perspective in addressing modern problems (Solomon H. Katz). Section 2 is devoted to methodological issues: the assessment of dietary intake (Sara A. Quandt), of nutritional status (John H. Himes), and of patterns of energy expenditure and physical activity (Angelo Tremblay and Claude Bouchard). Section 3, Nutrition and the Life Cycle, contains papers focused on the reproductive years (Linda S. Adair), infancy (Judith Gussler), growth (Robert M. Malina), and aging (Cynthia M. Beall). The final section, Anthropology, Nutrition, and Ecology, contains considerations of the effects of iron deficiency on mental development (Ernesto Pollitt), obesity (Manuel Peña *et al.*), and "intervention advocacy for action" (John W. Townsend). A subject index is appended.—K.L.

Reprints of Books Previously Reviewed

The Ancestry of the Vertebrates. R. P. S. Jefferies. Cambridge University Press, New York, 1987. \$75. Reviewed 236, 1476 (1987).

Black-Body Theory and the Quantum Discontinuity, 1894-1912. Thomas S. Kuhn. University of Chicago Press, Chicago, IL, 1987. Paper, \$18.95. Reviewed 203, 1100 (1979).

The Mind of a Mnemonist. A. R. Luria. Harvard University Press, Cambridge, MA, 1987. Paper, \$7.95. Reviewed 161, 349 (1968).

Books Received

Abbrégé de Biochimie Alimentaire. C. Alais and G. Linden. Masson, Paris, 1987. 224 pp., illus. Paper, 120 F.

Acoustic Waves. Devices, Imaging, and Analog Signal Processing. Gordon S. Kino. Prentice-Hall, Englewood Cliffs, NJ, 1987. xxii, 601 pp., illus. \$64. Prentice-Hall Signal Processing Series.

Advanced Biochemical Engineering. Henry Bungay and Georges Belfort, Eds. Wiley-Interscience, New York, 1987. xii, 304 pp., illus. \$42.95.

Advanced Micropipette Techniques for Cell Physiology. Kenneth T. Brown and Dale G. Flaming. Wiley-Interscience, New York, 1987. x, 296 pp., illus. \$57.95. International Brain Research Organization Handbook Series, vol. 9.

Advances in Biomedical Polymers. Charles G. Gebel, Ed. Plenum, New York, 1987. x, 405 pp., illus. \$75. Polymer Science and Technology, vol. 35. From a symposium, Chicago, IL, Sept. 1985.

Advances in Surface Treatments. Technology, Applications, Effects. Vol. 4, Residual Stresses. A. Nikuläri. Pergamon, New York, 1987. xviii, 566 pp., illus. \$90.

Advances in the Statistical Sciences. Vol. 2, Foundations of Statistical Inference. Ian B. MacNeill and Gary J. Humphrey, Eds. Reidel, Dordrecht, 1987. xviii, 287 pp., illus. \$62. University of Western Ontario Series in Philosophy of Science. From a symposium, London, Ontario, May 1985.

Asymptotics of High Order Differential Equations. R. B. Paris and A. D. Wood. Longman (Wiley), New York, 1986. x, 344 pp., illus. Paper, \$49.95. Pitman Research Notes in Mathematics Series, 129.

An Atlas of Functions. Jerome Spanier and Keith B. Oldham. Hemisphere (Harper and Row), New York, 1987. x, 700 pp. \$149.50.

Auditory Processing of Complex Sounds. William A. Yost and Charles S. Watson, Eds. Erlbaum, Hillsdale, NJ, 1987. xii, 328 pp., illus. \$29.95. From a workshop, Sarasota, FL, April 1986.

Balancing the National Interest. U.S. National Security Export Controls and Global Economic Competition. Panel on the Impact of National Security Controls on International Technology Transfer. National Academy Press, Washington, DC, 1987. xiv, 321 pp., illus. \$24.95.

The Bellman Continuum. A Collection of the Works of Richard E. Bellman. Robert S. Roth, Ed. World Scientific, Singapore, 1986 (U.S. distributor, Taylor and Francis, Philadelphia). xxii, 868 pp., illus. \$79.

Beyond Spaceship Earth. Environmental Ethics and the Solar System. Eugene C. Hargrove, Ed. Sierra Club, San Francisco, 1987. xvi, 336 pp. + plates. \$25. Based on a conference, Athens, GA, June 1985.

Can the Cardiac Stand Trial? Meyer Texon. Hemisphere (Harper and Row) New York, 1987. xvi, 644 pp. \$37.

Cognition and Fact. Materials on Ludwik Fleck. Robert S. Cohen and Thomas Schnelle, Eds. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). xxxiv, 468 pp. \$59.50. Boston Studies in the Philosophy of Science, vol. 87.

Communication and Cognition in Normal Aging and Dementia. Kathryn A. Bayles and Alfred W. Kaszniak, assisted by Cheryl K. Tomocda. College-Hill (Little, Brown), Boston, 1987. xviii, 400 pp., illus. \$39.50; paper, \$29.50.

Comparative Primate Biology. J. Erwin, Vol. 1, Systematics, Evolution, and Anatomy. Daris R. Swidler and J. Erwin, Eds. xvi, 820 pp., illus. + plates. \$190. Vol. 2, part A. Behavior, Conservation, and Ecology. G. Mitchell and J. Erwin, Eds. xii, 633 pp., illus. \$150. Vol. 3, Reproduction and Development. W. Richard Duxlow and J. Erwin, Eds. xii, 497 pp., illus. \$120. Liss, New York, 1986.

A Concept of Mathematical Physics. Models in Mechanics. Tamás Matolcsi. Akadémiai Kiadó, Budapest, 1986. 335 pp.

Epidemiology and Control of African Trypanosomiasis. Report of a WHO Expert Committee. World Health Organization, Geneva, 1986. (U.S. distributor, WHO Publications Center, Albany, NY). 127 pp., illus. Paper, \$9.60. Technical Report Series 739.

Essays in Biochemistry. Vol. 22. R. D. Marshall and K. F. Tipton, Eds. Published for the Biochemical Society by Academic Press, Orlando, FL, 1986. xii, 200 pp., illus. Paper, \$23.

Essentials of Ocean Science. Keith Stowe. Wiley, New York, 1987. xiv, 353 pp., illus. \$33.55.

Excitatory Amino Acid Transmission. T. Philip Hicks, David Lodge, and Hugh McLennan, Eds. Liss, New York, 1987. xxvi, 426 pp., illus. \$69.50. Neurology and Neurobiology, vol. 24. From a symposium, Banff, Alberta, Canada, July 1986.

Literacy, Society, and Schooling. A Reader. Suzanne de Castell, Allan Luke, and Kieran Egan, Eds. Cambridge University Press, New York, 1986. xiv, 336 pp. \$39.50; paper, \$14.95.

LSI/VLSI Testability Design. Frank F. Tsui. McGraw-Hill, New York, 1987. xvi, 703 pp., illus. \$49.95.

The Lumbar Spine. Martin B. Camins and Patrick F. O'Leary. Raven, NY, 1987. xxii, 489 pp., illus. \$67.

Magnetic Resonance Imaging of the Central Nervous System. Michael Brant-Zawadzki and David Norman, Eds. Raven, New York, 1986. xii, 404 pp., illus. \$89.50.

Mammalian Proteases. A Glossary and Bibliography. Vol. 2, Exopeptidases. J. K. McDonald and A. J. Barrett. Academic Press, Orlando, FL, 1986. xvi, 357 pp., illus. \$34.

Managing Nuclear Operations. Ashton B. Carter, John D. Steinbruner, and Charles A. Zraket, Eds. Brookings Institution, Washington, DC, 1987. xxiv, 751 pp., illus. Paper, \$18.95.

Manuel Pratique de Psychophysique. Claude Bonnet. Colin, Paris, 1986. 254 pp., illus. Paper, 120 F.

Mass Spectrometry in Biomedical Research. Simon J. Gaskell, Ed. Wiley, New York, 1986. xvi, 492 pp., illus. \$72.95.

Measuring Emotions in Infants and Children. Vol. 2, Carroll E. Izard and Peter B. Read, Eds. Cambridge University Press, New York, 1986. x, 277 pp., illus. \$39.50. Cambridge Studies in Social and Emotional Development.

Membrane Proteins. Isolation and Characterization. Angelo Azzi, Lanfranco Masotti, and Arnaldo Vecli, Eds. Springer-Verlag, New York, 1986. xii, 181 pp., illus. \$20. Membrane Proteins. From an advanced course.

Methods of Soil Analysis. Part 1, Physical and Mineralogical Methods. Arnold Klute, Ed. 2nd ed. American Society of Agronomy and Soil Science Society of America, Madison, WI, 1986. xxviii, 1188 pp., illus. \$60. Agronomy, no. 9, part 1.

Microbial Autecology. A Method for Environmental Studies. Robert L. Tate III, Ed. Wiley-Interscience, New York, 1986. xiv, 266 pp. \$42.95.

Military Radiobiology. James J. Conklin and Richard I. Walker, Eds. Academic Press, New York, 1987. x, 404 pp., illus. \$34.95.

Modern Kaluza-Klein Theories. Thomas Appelquist, Alan Chodos, and Peter G. O. Freund, Eds. Addison-Wesley, Menlo Park, CA, 1987. xviii, 619 pp., illus. \$47.95. Frontiers in Physics.

Modern NMR Techniques for Chemistry Research. Andrew E. Derome. Pergamon, New York, 1987. xviii, 280 pp., illus. Paper, \$35. Organic Chemistry Series.

Molecular Aspects of Insect-Plant Associations. Lena B. Brattsen and Sami Ahmad, Eds. Plenum, New York, 1986. xii, 346 pp., illus. \$59.50. Based on a symposium.

Molecular Determinants of Plant Diseases. Syoyo Nishimura, Carroll P. Vance, and Noriyuki Doke, Eds. Japan Scientific Societies Press, Tokyo, and Springer-Verlag, New York, 1987. xiv, 293 pp., illus. \$69. From a seminar, Inuyama City, Japan, May 1985.

Molecular Genetics of Plant-Microbe Interactions. D. P. S. Verma and N. Brisson, Es. Nijhoff, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xxxii, 338 pp., illus. \$49.50. Current Plant Science and Biotechnology in Agriculture. From a symposium, Montreal, July 1986.

Molecular Sieve Catalysts. P. Michiels and O. C. E. De Herdt. Pergamon, New York, 1987. xviii, 391 pp., illus. \$80. EPO Applied Technology Series, vol. 9.

Monoclonal Antibody Production Techniques and Applications. Lawrence B. Schook, Ed. Dekker, New York, 1987. xvi, 316 pp., illus. \$89.75. Immunology Series, vol. 33.

Monoclonals and DNA Probes in Diagnostic and Preventive Medicine. Robert C. Gallo, Giuseppe Della Porta, and Alberto Albertini, Eds. Raven, New York, 1987. xvi, 240 pp., illus. \$39.50. Based on a meeting, Florence, Italy, April 1986.

Mössbauer Spectroscopy. Dominic P. E. Dickson and Frank J. Berry, Eds. Cambridge University Press, New York, 1986. xii, 274 pp., illus. \$54.50.

Multivariate Data Analysis. Fionn Murtagh and André Heck. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). xvi, 210 pp., illus. \$49.50. Astrophysics and Space Science Library.

Music and Child Development. J. Craig Peery, Irene Weiss Peery, and Thomas W. Draper, Eds. Springer-Verlag, New York, 1987. xiv, 267 pp., illus. \$35.50.

Neogene Paleontology and Geology of Sahabi. Noel T. Boaz *et al.*, Eds. Liss, New York, 1987. xvi, 401 pp. + charts, in pocket. \$175.

Neural Mechanisms and Cardiovascular Disease. Bernard Lown, Alberto Malliani, and Marco Prosdoci, Eds. Liviana Press, Padova, and Springer-Verlag, New York, 1986. xiv, 642 pp., illus. \$95. Fidia Research Series, vol. 5. From a symposium, Santa Margherita Ligure, Italy, May 1985.

Nuclear Physics. Recent Trends and Developments Z. Wilhelmi, G. Skefińska, and M. Kiciński-Habior, Eds. Harwood, New York, 1987. xvi, 999 pp., illus. \$150. Nuclear Science Research Conference Series, vol. 10. From a summer school, Mikolajki, Poland, Sept. 1985.

Nucleic Acid and the Protein Sequence Analysis. A Practical Approach. M. J. Bishop and C. J. Rawlings, Eds. IRL Press, McLean, VA 1987. xviii, 417 pp., illus. paper, \$54. Practical Approach Series.

Nucleophilicity. J. Milton Harris and Samuel P. McManus, Eds. American Chemical Society, Washington, DC, 1987. xiv, 494 pp., illus. Advances in Chemistry Series, 215. From a symposium, Chicago, Sept. 1985.

Nutrition and Aging. Martha L. Hutchinson and Hamish N. Munro, Eds. Academic Press, Orlando, FL, 1986. xxii, 287 pp., illus. \$32.50. Bristol-Myers Nutrition Symposia, 5. From a symposium, Boston, MA, Oct.-Nov. 1985.

On Manifolds with an Affine Connection and the Theory of General Relativity. Elie Cartan, Bibliopolis, Naples, 1986. 199 pp. \$50. Monographs and Textbooks in Physical Science. Translated from the French editions (1922 and 1955) by Anne Magnon and Abhay Ashtekar.

Organic Chemistry. K. Peter C. Vollhardt. Freeman, 1987. xxiv, 1275 pp., illus., + answers and index. \$49.95.

Organic Geo- and Cosmochemistry. E. Herbst *et al.* Springer-Verlag, New York, 1987. 178 pp., illus. \$65.40. Topics in Current Chemistry, vol. 139.

Origins of Human Aggression. Dynamics and Etiology. Gerard G. Neuman, Ed. Human Sciences Press, New York, 1987. 200 pp., illus. \$29.95. From a symposium, New York, Dec. 1984.

Otherworld Journeys. Accounts of Near-Death Experience in Medieval and Modern Times. Carol Zaleski. Oxford University Press, New York, 1987. x, 275 pp. \$18.95.

Parasite Lives. Papers on Parasites, Their Hosts and Their Associations. Mary Cremin, Colin Dobson, and Douglas E. Moorhouse, Eds. University of Queensland Press, St. Lucia, Australia, 1986. x, 229 pp., illus. Paper, \$A28.

Physics of Sports. Selected Reprints. Cliff Frohlich, Ed. American Association of Physics Teachers, College Park, MD, 1986. iv, 123 pp., illus. Paper, \$10.

Physiology of the Gastrointestinal Tract. Leonard R. Johnson *et al.*, Eds. 2nd ed. Raven, New York, 1986. xl, 1780 pp., illus. + indexes. \$250.

Pioneer Conservationists of Eastern America. Peter Wild. Mountain Press, Missoula, MT, 1987. xviii, 280 pp., illus. \$14.95.

Plant Ecology. Michael J. Crawley, Ed. Blackwell Scientific, Palo Alto, CA, 1986. xiv, 496 pp., illus. \$55; paper, \$29.95.

Plantation Silviculture. Kenneth R. Shepherd. Nijhoff, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). xiv, 322 pp., illus. \$69. Forestry Sciences.

Polycyclic Aromatic Hydrocarbons and Astrophysics. A. Léger, L. d'Hendecourt, and N. Boccara, Eds. Reidel, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xvi, 402 pp., illus. \$74.50. NATO Advanced Science Institutes Series C, vol. 191. From a workshop, Les Houches, France, Feb. 1986.

Practical Application of Remote Sensing in Forestry. S. Sohlberg and V. E. Sokolov, Eds. Published for the United Nations by Nijhoff, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). xviii, 205 pp., illus. \$45.90. Forestry Sciences. From a seminar, Jönköping, Sweden, May 1985.

Practical CT. Technology and Techniques. Lincoln L. Berland. Raven, New York, 1987. xiv, 271 pp., illus. Paper, \$29.50.

Preparative Polar Organometallic Chemistry. Vol. 1. Lambert Brandsma and Hermann Verkruijsse. Springer-Verlag, New York, 1987. xiv, 240 pp., illus. \$45.

A Primer of Discrete Mathematics. Daniel T. Finkbeiner II and Wendell D. Lindstrom. Freeman, New York, 1987. xvi, 363 pp., illus. \$29.95.

Principles of the Theory of Heat. Historically and Critically Elucidated. Ernst Mach. Brian McGuinness, Ed. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). xxii, 456 pp., illus. \$124. Vienna Circle Collection, vol. 17. Translated from the German edition (1900) by Thomas J. McCormack. Translation revised and completed by P. E. B. Jourdain and A. E. Heath.

Seabird Ecology. R. W. Furness and P. Monaghan. Blackie, Glasgow, and Chapman and Hall (Methuen), New York, 1987. x, 164 pp., illus. \$45; paper, \$23. Tertiary Level Biology.

Selected Papers. Errett Bishop. World Scientific, Singapore, 1986 (U.S. distributor, Taylor and Francis, Philadelphia). xxiv, 414 pp. \$56.

Semigroups, Theory and Applications. Vol. 1. H. Brezis, M. G. Crandall, and F. Kappel. Longman (Wiley), New York, 1986. x, 252 pp., illus. Paper, \$34.95. Pitman Research Notes in Mathematics Series, 141.

Seven Ideas That Shook the Universe. Nathan Speilberg and Bryon D. Anderson. Wiley, New York, 1987. viii, 263 pp., illus. Paper, \$14.95. Wiley Science Editions.

Vllth International Workshop on Photon-Photon Collisions. (Paris, April 1986.) A. Courau and P. Kessler, Eds. World Scientific, Singapore, 1986 (U.S. distributor, Taylor and Francis, Philadelphia). xiv, 485 pp., illus. \$63.

Sexual Dimorphism in Living and Fossil Primates. M. Pickford and B. Chiarelli, Eds. Il Sedicesimo, Florence, Italy, 1986. viii, 215 pp., illus. Paper \$33. Based on a meeting, Florence, Nov. 1985.

Small Area Statistics. An International Symposium (Ottawa, Canada, May 1985). R. Platek, J. N. K. Rao, C. E. Särndal, and M. P. Singh, Eds. Wiley, New York, 1987. xvi, 278 pp., illus. \$39.95. Wiley Series in Probability and Mathematical Statistics.

Small Ring Compounds in Organic Synthesis II. A. de Meijere, Ed. Springer-Verlag, New York, 1987. vi, 158 pp., illus. \$70.40. Topics in Current Chemistry 135.

The Society of Mind. Marvin Minsky. Simon and Schuster, New York, 1987. 339 pp., illus. \$19.95.

Soil Organic Matter. Biological and Ecological Effects. Robert L. Tate III. Wiley Interscience, New York, 1987. xii, 291 pp., illus. \$42.50.

This Bittersweet Soil. The Chinese in California Agriculture, 1860-1910. Sucheng Chan. xxvi, 503 pp., illus. + plates. \$40.

To Govern Evolution. Further Adventures of the Political Animal. Walter Truett Anderson, Harcourt Brace Jovanovich, New York, 1987. xviii, 376 pp. \$22.95.

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POSITIONS WANTED

Ph.D. Cardiovascular Pharmacologist/Neuroscientist with extensive publications, research, and teaching experience, and grant support seeks interesting academic or industrial position. Box 101, SCIENCE.

Statistician, Biologist, Computist (Ph.D. 1981). I have extensive research experience, abilities and publications, especially in evolutionary biology, genetics, ecology, scientific and general programming. Freelance projects desired in any area of science. Don Gilbert, P.O. Box 302, Bloomington, IN 47402. Telephone 812-333-5616.

Translations: Doctoral student interested in performing Chinese/English translations of scientific literature. Professional training in pharmacology, pharmacy, neuroscience, herbal medicine, and acupuncture. Send inquiries to: Hoau-Wang, Department of Psychiatry/EPPI, 3200 Henry Avenue, Philadelphia, PA 19129.

POSITIONS OPEN

University of Utah School of Medicine, Department of Psychiatry: An **ACADEMIC NEUROLOGIST** is being sought for a tenure-track position at the instructor or assistant professor level. The successful applicant will be expected to develop an active research program in his/her area, participate in the teaching of psychiatric residents, and contribute toward his salary through clinical activities and grant support. Applicants should have skills in the laboratory evaluation of neurotransmitters and neuroreceptors, and an interest in participating in an ongoing research project with Gilles de la Tourette patients. Send curriculum vitae, support documents, and four letters of recommendation to: **David A. Tomb, M.D., Department of Psychiatry, University of Utah School of Medicine, Salt Lake City, UT 84132. The University of Utah is an Equal Opportunity/Affirmative Action Employer.** Deadline: 17 August 1987.

ANIMAL PHYSIOLOGY FACULTY POSITION MISSISSIPPI STATE UNIVERSITY

Tenure-track (9-month) position for one to assume leadership of outstanding physiology teaching and research program developed by retiring Distinguished Professor. Commitment to teaching, research, and graduate education essential. Qualified candidate must have Ph.D. degree and experience corresponding to that deemed necessary to develop a vigorous externally-funded research program. Special consideration will be given to applicants whose research area emphasizes physiological consequences of exposure of mammals and/or fish to environmental contaminants and other xenobiotics. Position available 15 August 1987 and will remain open until filled. Rank and salary commensurate with qualifications. Send curriculum vitae, statement of interests, recent reprints, and three letters of reference to: **Dr. H. Wyman Dorough, Head, Department of Biological Sciences, Mississippi State University, Drawer GY, Mississippi State, MS 39762. Mississippi State University is an Equal Opportunity/Affirmative Action Employer.**

DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE UNIVERSITY OF PENNSYLVANIA SCHOOL OF MEDICINE

A tenure-track position for **ASSISTANT PROFESSOR** in neuropathobiology is available for applicants with M.D. and/or Ph.D. degrees. Attention will be directed at candidates with research background and expertise in molecular and biochemical methodologies as well as their applications to and general familiarity with the neuronal cytoskeleton or membrane systems. The position will also include participation in graduate educational programs, either molecular biology, neurobiology or biochemistry, of the School of Medicine.

Send curriculum vitae and names of three references to: **Dr. Nicholas K. Gonatas, Director of Neuropathology, Department of Pathology and Laboratory Medicine, 454 Johnson Pavilion, University of Pennsylvania Medical School, Philadelphia, PA 19104. The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

ASSISTANT DIRECTOR OF RESEARCH DEVELOPMENT

Basic and applied research administration: immediate entry-level opening for applicant with neuroscience background; Ph.D., postdoctoral experience, familiarity with molecular genetics desirable, excellent written/verbal skills. Résumé, cover letter, salary requirement, and two references, in confidence. *Equal Opportunity Employer* M/F. Box 103, SCIENCE.

ASSISTANT PROFESSOR—BIOCHEMISTRY. Seek to add two tenure-leading faculty members in biochemistry at the assistant professor level starting August, 1988. Candidates must possess doctorate; subsequent postdoctoral experience is preferred. Appointees will be expected to establish a vigorous program of research relating to biochemistry. Applications, which should include a complete résumé, a brief description of research plans, and three letters of recommendation should be sent by 15 September 1987 (or until suitable candidate applies thereafter) to: **Professor Sheldon M. Schuster, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0304. Telephone: 402-472-2744. Affirmative Action/Equal Opportunity Employer.**

ASSISTANT PROFESSOR—ORGANIC CHEMISTRY. Tenure-track assistant professor starting August 1988. Must possess doctorate; subsequent postdoctoral experience is preferred. Appointee must establish a vigorous program of research which may be in any area of organic chemistry. Commitment to excellence in undergraduate and graduate teaching is essential. Applications, which should include a complete résumé, undergraduate and graduate transcripts, and a description of research plans, and three letters of recommendation, should be sent by 15 September 1987 (or until suitable candidate applies thereafter) to: **Professor Desmond M. S. Wheeler, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0304. Telephone: 402-472-2735. Affirmative Action/Equal Opportunity Employer.**

ASSISTANT PROFESSOR. Applications are invited for a tenure-track position at the assistant professor level in the general area of cell physiology and/or cell biology. Candidates must have a Ph.D. or M.D., at least 2 years of postdoctoral experience and demonstrable ability to develop an independent research program. Please send curriculum vitae, description of research interests, and names and addresses of at least three references to: **Dr. Gilbert A. Castro, University of Texas Medical School, Department of Physiology and Cell Biology, P.O. Box 20708, Houston, TX 77225. Deadline for applications is 31 January 1988. An Equal Opportunity Employer. Women and minorities are encouraged to apply.**

Applications are invited for a full-time tenure-track position at the **ASSISTANT PROFESSOR OR ASSOCIATE PROFESSOR** level in the Department of Anatomy, College of Medicine, University of South Florida. Applicants should have a Ph.D. or M.D. degree and a minimum of 2 years of postdoctoral research experience. The successful candidate will be expected to pursue a vigorous research program, and to participate in the teaching of gross anatomy to freshmen medical students. Experience in the latter is required. Send curriculum vitae, statement of research interests, and the name of three references by 30 September 1987 to: **J. Rhodin, M.D., Ph.D., Chairman, Department of Anatomy, College of Medicine, University of South Florida, 12901 Bruce B. Downs Boulevard, Tampa, FL 33612. An Equal Opportunity/Affirmative Action Employer.**

ONE-YEAR ASSISTANT PROFESSOR: January to December 1988. Teach one semester upper-level biochemistry lecture and lab, selected topics course in area of interest, and one semester of a year-long general chemistry course for majors/non-majors. Supervise general and/or organic chemistry labs. Ph.D. in chemistry or biochemistry required. Submit interest letter, résumé and three reference letters by 11 September 1987, to: **Chemistry Search, University of Puget Sound, P.O. Box 7297, Tacoma, WA 98407. An Equal Opportunity Affirmative Action Employer.**

POSITIONS OPEN

ASSOCIATE RESEARCH SCIENTIST: Provide physics and engineering support to clinical MRI (Magnetic Resonance Imaging) using both superconductive and resistive imaging systems. Devise and supervise quality control procedures on MRI system, implement novel methods for non-invasive blood flow measurements in animals and humans using MRI techniques. Engage in independent research in the development of MRI and develop teaching programs for undergraduate and graduate students. Develop computer based simulations to study complex phenomena in MRI. Requires completion of requirements for Ph.D. in applied physics. No specific experience required. Requires detailed knowledge of MR imagery, spectroscopy, advanced numerical techniques using the FORTRAN and VAX/VMS computer systems, and signal and image processing as evidenced by at least one doctoral level course or a professional article for publication in each discipline. Requires a demonstrated ability to perform experiments on MR imaging equipment, using both resistive and superconductive imaging systems, and in particular, the GE Signa, GE CSI II and the GE 0.15T resistance systems. Hours: 9:00 a.m. to 5:00 p.m. Monday through Friday. Wages: \$28,000 per year. Send résumé to: **Job Service Technical Unit, Connecticut Department of Labor, 200 Folly Brook Boulevard, Westfield, CT 06109. Refer to Job Order #0554W023.**

AUDITORY BIOPHYSICS

The Boys Town National Institute seeks a Ph.D. or M.D. with postdoctoral experience to fill a position as **STAFF SCIENTIST AND COORDINATOR** of a newly created Auditory Biophysics Laboratory. The position is in the Center for Hearing Research, a group of six full-time research laboratories working in the general area of hearing and communication disorders. Ample space and start-up funds are available. Scientists with expertise in any area of auditory biophysics are encouraged to apply, but preference will be given to those who investigate cochlear processes at the cellular level. Inquiries or applications consisting of curriculum vitae, a statement of research interests and accomplishments, representative reprints, and the names of three referees should be addressed to: **Dr. Eric Javel, Director, Center for Hearing Research, Boys Town National Institute, 555 North 30th Street, Omaha, NE 68131. An Equal Opportunity Employer.**

BIOCHEMIST/CELL BIOLOGIST FACULTY POSITIONS. Two tenure-track faculty positions to conduct research and teaching in the Department of Food Science and Human Nutrition (AG 858 and AG 865). Individuals should have strong background in biochemistry, protein chemistry/enzymology, and/or cell/molecular biology, and be capable of establishing an extramurally-funded basic research program with applications to food systems. Applicant must possess Ph.D. and postdoctoral experience is highly desirable. Candidates are expected to teach in area of expertise, and interact with individuals in areas of established departmental strength such as muscle biology, lipid oxidation, dairy chemistry, microbiology, food toxicology, nutrition, and food engineering. Excellent opportunities exist for interaction with Michigan State University Biotechnology Research Center and Michigan Biotechnology Institute. Deadline is 15 September 1987 or until positions are filled. Applications and nominations including curriculum vitae, three letters of recommendation, representative publications, and brief outline of research goals should be sent to:

Dr. Thayne R. Dutson, Chairperson
Department of Food Science and Human Nutrition
Michigan State University
East Lansing, MI 48824-1224

CHAIRMAN DEPARTMENT OF NEUROSURGERY

The State University of New York at Buffalo School of Medicine invites applications for the position of Chairman of the Department of Neurosurgery. Applicants must be certified by the American Board of Neurosurgery and must have substantial academic credentials. *The University is an Equal Opportunity/Affirmative Action Employer.*

Please send inquiries and curriculum vitae to:

Andrew A. Gage, M.D.
Roswell Park Memorial Institute
666 Elm Street
Buffalo, NY 14263

POSITIONS OPEN

BIOLOGY LABORATORY COORDINATOR

Applicants are invited for a position of Laboratory Coordinator in the Biology Department of Rice University for the 1987 to 1988 academic year. This is a university staff appointment. We are seeking an individual to assume responsibility for the operation of the undergraduate introductory and advanced experimental laboratory courses. The salary is competitive and depends upon qualifications. An advanced degree in biological science and/or suitable experience in a university laboratory is required. For consideration, send résumé and letters of recommendation to:

Dr. R. M. Glantz
Department of Biology
Rice University
P.O. Box 1892
Houston, TX 77251

Rice University is an Equal Opportunity Employer.

CARDIOVASCULAR PHARMACOLOGIST DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY ALBANY MEDICAL COLLEGE

Applicants are invited to apply for a tenure-track position now available. The position is expected to be filled at the assistant or associate professor level. We are seeking an individual with research interests in cardiovascular pharmacology to help build a departmental focus in this area and to interact with cardiovascular researchers in other departments as well. The successful candidate will be expected to develop an active and funded research program, and to participate in medical student and graduate student teaching. The Department of Pharmacology and Toxicology was reorganized 3 years ago, and is now well-staffed, well-equipped, and well-funded. The Albany region offers major summer and winter recreational and cultural activities. Applicants should send curriculum vitae, a summary of research activities, and three letters of reference to: **Dr. Stanley D. Glick, Chairman, Department of Pharmacology and Toxicology, Albany Medical College, Albany, NY 12208. Equal Employment Opportunity/Affirmative Action M/F.**

CHAIRPERSON/HEAD DEPARTMENT OF BOTANY AND PLANT PATHOLOGY OREGON STATE UNIVERSITY

Applications and nominations are invited for the position of Chairperson/Head of the Department of Botany and Plant Pathology, Oregon State University. The Department has 28 regular faculty members and 50 graduate students. It supports a wide range of programs in the discipline, and joint ones in biology, genetics, molecular biology, and plant physiology.

Candidates must possess a doctoral degree, demonstrated excellence in research and teaching, administrative ability, and the enthusiasm to provide leadership to the department in meeting its responsibilities for research, teaching, and extension. The appointee will be expected to continue his/her research, and to participate in the teaching program.

Applications should include a statement of interest, curriculum vitae, and list of publications. Inquiries and nominations are welcome; contact: **Dr. Kenton L. Chambers, Search Committee, Department of Botany and Plant Pathology, Oregon State University, Corvallis, OR 97331, by 15 August 1987. An Equal Opportunity/Affirmative Action Employer.**

DIRECTOR, ANDROLOGY LABORATORY.

Ph.D. in biomedical science with experience in male reproductive biology to supervise andrology portion of a human IVF program, as well as conduct independent, externally funded research. Expected to coordinate the efforts of technicians and participate in the training of clinical fellows, and IVF workshop participants. The individual selected will also receive an academic appointment in the appropriate clinical and/or basic science department(s) at Harvard Medical School. Submit curriculum vitae, a brief statement of research plans and names of three references to: **Machelle M. Seibel, M.D., Director, Division of Reproductive Endocrinology, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215.**

POSITIONS OPEN

CLINICAL RESEARCH ASSOCIATE, St. Luke's Hospital, Milwaukee, Wisconsin. Full-time position available September 1987. Excellent opportunity available to join our oncological clinical research project. Candidates must have 3 to 5 years of research experience including research in mammalian tissue culture, blood banking and aseptic techniques. Candidates should send curriculum vitae immediately and call collect to discuss your qualifications: **D. Brutus, Employment Department, St. Luke's Hospital, 2900 West Oklahoma Avenue, Milwaukee, WI 53215. Telephone: 414-649-6378. An Equal Opportunity Employer M/F/H/V.**

DEPUTY DIRECTOR OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT WASHINGTON, D.C. \$64,700 to \$73,400

U.S. Environmental Protection Agency is seeking highly qualified candidates for the position of Deputy Director, Office of Health and Environmental Assessment. The Director and Deputy are responsible for the management of a program for assessing the effects of environmental pollutants on human health and ecological systems. This includes performing risk assessments and developing risk assessment methods and guidelines for all Agency program offices, and research aimed at reducing uncertainty in risk assessment.

To meet the requirements of the position, applicants must have a degree (doctorate preferable) in life or health sciences, or a related field, and substantial experience in human health risk assessment, and must meet the technical and executive qualifications described in the Vacancy Announcement. Call or write for a copy of the Vacancy Announcement to: **Edna Morse, Environmental Protection Agency, SES and Executive Resources Unit, PM-224, 401 M Street, S.W., Washington, DC 20460. The telephone number is: 202-382-3328. Applications must be postmarked by 31 July 1987.**

EPA is an Equal Opportunity Employer.

DEPUTY DIRECTOR, ENVIRONMENTAL RESEARCH LABORATORIES. The Environmental Research Laboratories, NOAA, DOC in Boulder, Colorado is seeking applicants for a scientific manager to serve as its deputy director. Incumbent shares fully in the management, planning, program development, and program assessment for the organization. The ERL consists of 1000 employees, organized into nine laboratories and several program offices. It conducts an integrated program of development, and services to improve the Earth's environment: the oceans and inland waters, the lower and upper atmosphere, and the space environment. Position is in the Senior Executive Service. Salary is \$64,700 to \$77,500 per annum negotiable based on experience, scientific achievements, and technical/managerial qualifications. **QUALIFICATIONS:** Broad background in research and development in the atmospheric, oceanographic, environmental, physical, or engineering sciences to conceive, design, direct, and evaluate large-scale multidisciplinary research programs. Competence in the physical sciences sufficient to make informed judgments on the likelihood of future progress in ERL programs. Distinguished records of research accomplishments in meteorology, oceanography, environmental, or physical sciences. Executive competence in broad areas of administration such as program planning and evaluation, multigroup coordination, resource acquisition and administration, organizational representation, and human resource utilization including Equal Employment Opportunity. **TO APPLY:** Contact: **Evelyn Fritz, 301-443-8834** for application forms. **Reference Vac. #NOAA87-17EF.** Applications must be received prior to closing date of 28 August 1987. *An Equal Opportunity Employer.*

EPIDEMIOLOGIST / BIOSTATISTICIAN—Applications for three positions (GS-9, 12, or 13; \$22,458 to \$38,727) are being accepted by the Veterans Administration. A graduate degree in epidemiology or biostatistics is required, along with SAS and FORTRAN experience. If interested, send completed SF 171, to: **Dr. Han K. Kang, Office of Environmental Epidemiology, Riddell Building, Room 401, 1730 K Street, N.W., Washington, D.C. 20006-3868** or call 202-653-1891 for information. *Equal Employment Opportunity Employer.*

REQUEST FOR PROPOSALS

Hawaii Heptachlor Health Effects Research Program

In 1981-82, heptachlor contamination of a considerable part of Hawaii's milk supply occurred. This has led to concern that adverse health effects might result particularly among children. Research studies to identify potential disease problems and to develop measures to prevent or ameliorate them are sought and will be supported.

Research Areas of Interest

1. Definition of exposure and exposed populations. Establishment of a Registry.
2. Body burdens of heptachlor and other chlorinated hydrocarbon pesticides.
3. Epidemiological evaluation of heptachlor exposure to define current and anticipated risk.
4. Metabolism of heptachlor and related substances. Biological effects of heptachlor.
5. Clinical management, surveillance and treatment of exposed persons.

Request Research Proposal applications from the **Scientific Advisory Council, Hawaii Heptachlor Health Effects Program, Dr. Irving J. Selikoff, Chair, The Mount Sinai Medical Center (Box 1059), NY 10029.**

It would be advantageous to submit an early letter of intent. Applications received by October 1, 1987 will be reviewed and applicants notified by December 1, 1987.

TOXICOLOGIST REPORT EDITOR REVIEWER

LOIRE VALLEY - FRANCE

We are looking for a very **experienced toxicologist/pharmacologist**.

You will contribute to reviewing data, preparing reports and making safety assessments from laboratory animal toxicity studies on potential new drugs.

Our Research Center located in AMBOISE comprises more than **100 scientists and support staff** representing all the disciplines involved in toxicology (e.g., pathologists, veterinarians, biochemists, teratologists, statisticians, ...).

The job could include other activities, depending on interests/experience of the candidate.

Fluent english is required, working knowledge of french would be useful.

For further information, please write (enclosing C.V.) or telephone to the Director, **PFIZER** Centre de Recherche - 37401 AMBOISE Cedex FRANCE - Tél. : 47 57 05 12.



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SENIOR SCIENTISTS

Pharmaceutical Research and Development

The LILLY RESEARCH LABORATORIES, a Division of Eli Lilly and Company, has openings for Ph.D. level scientists in the Pharmaceutical Research and Development Division.

Solid State Chemistry Research

Applicants must have a doctoral degree in chemistry, chemical engineering or pharmaceutical science with a strong background in solid state science. Experience with crystal polymorphism, phase relationships, solubility phenomena and crystallization kinetics would be desirable.

Responsibilities will include preformulation studies on new drug candidates and an independent research program in solid state physical chemistry.

Protein Formulation Research and Development

Applicants must have a doctoral degree in biochemistry, chemistry or pharmaceuticals with a strong background in the physical chemistry of peptides and proteins. Experience in protein stabilization, formulation of sterile products, conformational analysis and protein/excipient interaction would be desirable. Postdoctoral studies or industrial experience would also be desirable.

Responsibilities will include preformulation and formulation studies on new protein/peptide drug candidates and an independent research program in protein/peptide physical chemistry.

Qualified candidates should send their curriculum vitae to:



John W. Crooks
Manager, College Relations (SPR)
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, Indiana 46285
Equal Opportunity Employer

POSITIONS OPEN

DEVELOPMENTAL GENETICIST: Candidates are sought for a tenure-track, junior-level faculty position in developmental genetics of *Drosophila* with research emphasis on pattern formation in early embryogenesis. Responsible for establishing strong independent research program in developmental biology, teaching graduate and undergraduate courses in development genetics, and supervising graduate students. Candidates will be considered for joint academic appointment between the Whitehead Institute for Biomedical Research and the Department of Biology, Massachusetts Institute of Technology. Requirements: Ph.D. with 2 years of postdoctoral work in classical genetics with particular emphasis on embryology and molecular biology. Applicants should have carried out significant postdoctoral research using molecular genetics to approach problems of development, and must have plan for an independent research. Respond with curriculum vitae and brief statement of research objectives to: **Search Committee in Developmental Genetics, Whitehead Institute for Biomedical Research, Nine Cambridge Center, Cambridge, MA 02142. Equal Opportunity/Affirmative Action Employer.**

DIRECTOR MACROMOLECULAR ANALYSIS FACILITY LOYOLA UNIVERSITY STRITCH SCHOOL OF MEDICINE

The Loyola University of Chicago, Stritch School of Medicine, invites applications for the position of Director of the Macromolecular Analysis Facility. The Director will be responsible for supervising the operation, administration, and maintenance of a newly created interdisciplinary research facility containing an oligonucleotide synthesizer, peptide synthesizer, and protein sequenator. The successful candidate will be expected to interact and consult with faculty from a variety of disciplines in the synthesis and analysis of macromolecules. Applicants should possess a Ph.D., expertise in peptide chemistry, and familiarity with automated protein sequence analysis. Experience in oligonucleotide synthesis and DNA sequence analysis are desirable. Opportunities for collaborative research are available and encouraged, but not required. Send curriculum vitae and the names of three references by 1 September 1987 to: **Dr. G. Sullivan Read, Macromolecular Facility Search Committee, Loyola University of Chicago, Stritch School of Medicine, 2160 South First Avenue, Maywood, IL 60153. Loyola University of Chicago is an Affirmative Action/Equal Opportunity Employer.**

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE SOUTHERN FOREST EXPERIMENT STATION

ECOLOGIST/BIOLOGIST/RESEARCH ENTOMOLOGIST. USDA-FS, Southern Forest Experimental Station, is seeking an ecologist/biologist/research entomologist to establish research program on population dynamics of bark beetles. Applicant will work as part of a research team to develop models that describe and predict bark beetle population changes. Knowledge of population ecology and skill in population dynamics modeling are required. Salary range is GS/GM-12/13 (\$32,567 to \$38,727). Information concerning the position may be obtained from: **Personnel Management, Room T-10210, USFSB, 701 Loyola Avenue, New Orleans, LA 70113. Telephone: 504-589-3921. The USDA is an Equal Opportunity Employer.**

FACULTY POSITION/ CORNELL UNIVERSITY

Cornell University is seeking a tenure-track assistant professor in the Department of Food Science. Responsibilities include teaching (50%) and research (50%) in the areas of sensory analysis and flavor chemistry of foods. Interest in the sensory and chemical flavor characteristics of dairy foods is encouraged. The development of an active teaching and research program is expected.

A Ph.D. in food science or related disciplines with a strong background in chemistry, biochemistry, statistics, etc. is required. Experience in teaching and/or research in sensory methods and/or flavor chemistry is desirable. Send complete résumé, transcripts, statement of research interests, and three reference letters by 1 January 1988 to: **Dr. Joseph H. Hotchkiss, Chairman, Search Committee, Department of Food Science, Cornell University, Ithaca, NY 14853; 607-255-7912. Cornell University is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

EXTENSION HYDROLOGIST/TOXICOLOGIST (Headquarters: Riverside Campus): The University of California, Division of Agriculture and Natural Resources, Cooperative Extension is seeking a career-track academic candidate who will conduct applied research in hydrology; develop and conduct educational program to disseminate information on transport, disposal and treatment of toxic substances and wastes; and provide statewide leadership, and coordinate hydrology/toxics research and educational efforts. A minimum of Ph.D. or equivalent combination of education and experience in hydrology with emphasis on transport, chemical transformation, and detoxification of toxicants is required. Also required is knowledge of simulation modeling. Assure affirmative action in development and delivery of programs. Salary in the assistant agronomist rank. For complete description contact: **Division of Agriculture and Natural Resources Personnel, 6th Floor, 2120 University Avenue, Berkeley CA 94720. Telephone: 415-644-4320. Close 18 September 1987. Refer to #A-86-152. Affirmative Action/Equal Opportunity Employer M/F/H.**

FACULTY POSITION DIVISION OF ONCOLOGY

The Division of Oncology, Thomas Jefferson University has a position at the assistant or associate professor level available for fall 1987. Candidates should have a Ph.D. or an M.D. with Board-eligibility in medical oncology, with a research program in cancer pharmacology, immunology, or cell biology. Send curriculum vitae and a brief description of research interests to: **Dr. Michael J. Mastrangelo, Division of Medical Oncology, Thomas Jefferson University, 1015 Walnut Street, Philadelphia, PA 19107. Equal Opportunity Employer.**

FACULTY POSITION—HUMAN OR MAMMALIAN GENETICS—The University of Wisconsin/Madison Department of Medical Genetics, is inviting applications for a tenure-track position as assistant professor. Preference will be given to candidates with a research emphasis in human or mammalian genetics with potential human applications. Successful candidate will be expected to develop a vigorous, independent research program, supervise graduate students, and participate in the teaching program. The appointment can be made jointly with the Department of Pediatrics if appropriate. Send curriculum vitae, statement of plans for future research, and three letters of recommendation to: **Richard A. Spritz, Chairman, Medical Genetics Search Committee, Laboratory of Genetics, 445 Henry Mall, Madison, WI 53706 by 15 November 1987. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITION IN MOLECULAR GENETICS

The Department of Microbiology and Molecular Genetics at the University of Cincinnati College of Medicine announces a faculty opening in the area of molecular genetics of cancer or immunology. We are particularly interested in responses from individuals who have already established independent research programs. Excellent salary, laboratory space, and start up monies are available. Applicants should submit their curriculum vitae and a summary of research accomplishments and future research plans, along with the names of three scientists willing to write letters of recommendation, to: **Search Committee, Department of Microbiology and Molecular Genetics, University of Cincinnati College of Medicine, Cincinnati, OH 45267-0524. The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITIONS—ORGANIC CHEMISTRY. Seek to add two senior faculty members at the full professor or associate professor level. A distinguished record of accomplishment in research and teaching is required. Curriculum vitae, including a list of publications and an indication of research interests, and the names of three references should be sent by 1 October 1987 (or until suitable candidates apply thereafter) to: **Professor Reuben D. Rieke, Department of Chemistry, University of Nebraska—Lincoln, Lincoln, NE 68588-0304. Telephone: 402-472-2930.**

Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

UNIVERSITY OF CALIFORNIA—IRVINE DEPARTMENT OF RADIOLOGICAL SCIENCES FACULTY POSITION IN MEDICAL IMAGING

The University of California—Irvine, Department of Radiological Sciences, has an opening for a faculty position in medical imaging. The candidate must have a Ph.D. in physics or engineering with proven research experience and, preferably, administrative experience. Individuals with broad interdisciplinary research interests are encouraged to apply. Experience in nuclear imaging, single photon emission tomography, and related algorithms is desirable. Applicants should have a distinguished academic and research reputation which includes a successful record in obtaining contract and grant support. The level of appointment and salary is dependent upon the candidate's experience and academic achievements. Candidates should send their curriculum vitae, statement of research interests, and the names of five references to:

**Professor Z. H. Cho
Department of Radiological Sciences
University of California, Irvine
Irvine, CA 92717**

Applications should be received by 15 October 1987. *The University of California is an Equal Opportunity and an Affirmative Action Employer.*

GASTROINTESTINAL PHYSIOLOGIST/PHARMACOLOGIST

Neurex, a neuroscience biotechnology company, seeks Ph.D. level or equivalent physiologist/pharmacologist for neuropeptide-gastrointestinal studies. Experience in physiological monitoring/testing and neuropeptide/prostaglandin research essential. Will direct projects in gastrointestinal physiology/pharmacology, and develop other projects interfacing with multi-disciplinary group. Send curriculum vitae, publications, and references to:

**NEUREX CORPORATION
1500 Salado Drive, Suite 202
Mountain View, CA 94043**

IMMUNOLOGY AND AGING

The Department of Microbiology and the Interdisciplinary Center on Aging are seeking candidates to fill a tenure-track position as assistant professor. Highly qualified individuals may be considered at a more senior position. Candidates should have a Ph.D. or M.D. degree with postdoctoral research experience within the general areas of immunology and/or infectious diseases as they relate to aging. This position offers a competitive salary and highly attractive start-up funds. The successful candidate will be expected to apply for research support from external funding agencies. This is an excellent opportunity to join a dynamic and enthusiastic young Microbiology Department committed to excellence in graduate training and research as well as be associated with a newly established multidisciplinary research oriented Center on Aging. Interested applicants should send curriculum vitae and list of publications, and arrange to have three letters of recommendation sent to: **David C. Morrison, Ph.D., Department of Microbiology, Kansas University Medical Center, 39th and Rainbow Boulevard, Kansas City, KS 66103. Application deadline will be 1 September 1987 or until a suitable applicant is identified. The University of Kansas Medical Center is an Affirmative Action/Equal Opportunity Employer.**

INSTRUCTOR/ASSISTANT PROFESSOR

The Molecular and Cellular Vascular Research Laboratory, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, is seeking applicants for an assistant professor or instructor position in molecular biology. Applicant may be an M.D. or Ph.D. who has completed postdoctoral training in molecular biology. Applicant must be interested in working on gene expression in the cardiovascular area. Previous experience in cardiovascular research is not necessary. For inquiries, contact: **Dr. Victor J. Dzau, Molecular and Cellular Vascular Research Laboratory, 75 Francis Street, Boston, MA 02115. Women and members of minorities are encouraged to apply.**

IUPUI PURDUE SCHOOL OF SCIENCE DEAN

Applications and nominations are invited for Dean of the Purdue School of Science at Indiana University-Purdue University at Indianapolis (IUPUI). The Dean will provide leadership for excellence in teaching, research and service with particular attention to enhancing the quality of undergraduate programs and achieving the full potential of graduate programs.

The School offers Purdue degrees at the baccalaureate and master's levels in biology, chemistry, computer science, mathematical science, physics and psychology; Ph.D.'s are offered in most disciplines in collaboration with counterpart departments at West Lafayette. Indiana University degrees are offered at the B.S. and M.S. levels in geology. IUPUI is composed of 16 schools, serves 23,000 students, and is the third largest campus in the state. Funding for a new science and technology complex has recently been approved by the legislature.

Qualified candidates will have a record of research, funding and teaching sufficient to merit appointment at the rank of professor, possess strong communication and interpersonal skills, have successful administrative leadership experience as department chair or higher, and demonstrate an understanding of the requirements of laboratory research.

The review of applications will begin in September, and the position is expected to be filled in July 1988. Contact: **William M. Plater, Chair, Science Dean Search Committee, Administration Building, IUPUI, 355 North Lansing, Indianapolis, IN 46202**, for complete position description and additional information.

IUPUI is an EEO/AA employer. Candidates with a proven commitment to improving the participation of women and minorities in science professions are especially welcome.

GENETICIST

The Squibb Institute for Medical Research is recognized internationally as a leader in the research and development of pharmaceutical and allied health care products. We currently have an exceptional opportunity available for a molecular geneticist to join our Microbial Biochemistry and Genetics Department.

This position requires a Ph.D. with an established track record in genetics of yeast or filamentous fungi. You will be responsible for establishing a laboratory to conduct fundamental studies, design strategies for antifungal research and provide leadership in applying molecular genetics to other infectious disease problems.

Based at our headquarters in Princeton, NJ, this position offers the opportunity for an exceptional scientist to pursue a stimulating career, as well as an excellent salary and comprehensive benefits package. For confidential consideration, please submit your curriculum vitae to: **The Squibb Institute for Medical Research, Human Resources Department 581, P.O. Box 4000, Princeton, NJ 08543-4000.**



SQUIBB

Where science comes to life.

LifeCell™

OFFERS EXCITING OPPORTUNITIES

A Houston-based, biotechnology company developing new technologies for cryobiology, electron microscopy, and tissue preservation has exciting career opportunities:

LABORATORY DIRECTOR Aggressive, career-oriented individual with Ph.D. in biological sciences and electron microscopy experience. Excellent management skills and 5+ years experience desired. Ability to perform in a demanding environment and interface with top-level management. Texas Medical Center location in Houston.

RESEARCH SCIENTIST, Electron Microscopy Experience desired with low temperature techniques, microanalytical probing, immunological localization, autoradiography and/or hybridization histochemistry. Requires Ph.D. in Anatomy, Cell Biology, Pathology or equivalent and 3 years related experience.

RESEARCH SCIENTIST, Cell Culture/Biology Management and quality control of tissue culture, animal and human cell lines and virus stocks. Familiarity with growth characteristics of ATCC cell lines, knowledge of cell viability assays, chromosome karyotyping techniques and some biochemistry necessary. Requires Ph.D. in Cell Biology or equivalent and 2 years related experience.

RESEARCH ASSOCIATES/ASSISTANTS

Assist Research Scientist, Electron Microscopy. Strong sample preparation and microtome skills, a B.S. or M.S. in relevant biological discipline and 2 years experience required.

Assist Research Scientist, Cell Culture/Biology. Maintain animal and human cell lines and viruses. Requires knowledge of sterile techniques, cell viability assays and media preparation, a B.S. in Cell Biology or equivalent area of study and 2 years related experience.

LifeCell Corporation
S. Randolph May Ph.D.
Vice President, Research & Development
3606-A Research Forest Drive
The Woodlands, Texas 77380

BIOCHEMISTS/ MOLECULAR BIOLOGISTS

UNITED STATES BIOCHEMICAL CORP.

United States Biochemical Corporation, a leader in the field of molecular biology has immediate openings for biochemists/molecular biologists with experience and training in enzyme purification, DNA sequencing and analysis. Various positions require either a Ph.D., M.S. or B.S. degree in chemistry, biology or biochemistry with at least 1 year's laboratory experience.

BIOCHEMISTS

Qualified candidates will be familiar with enzyme and protein purification including such techniques as column chromatography, salt fractionation, gel electrophoresis and radioactive and spectrophotometric enzyme assay procedures.

MOLECULAR BIOLOGISTS

Qualified candidates will be familiar with DNA sequencing methods. This includes preparation of DNA and running sequencing electrophoresis gel apparatus.

Successful applicants will be employed at our well-equipped Research Center in suburban Cleveland. Interested and qualified persons should send their resume in confidence to:



**United States
Biochemical Corporation**

Research Center

P.O. Box 22400

Cleveland, Ohio 44122

Equal Opportunity Employer M/F

POSTDOCTORAL ASSOCIATE POSITIONS UNIVERSITY OF IOWA

Please contact the appropriate department to express your specific interest:

ANATOMY—Dr. Joe Dan Coulter, Professor and Head, Bowen Science Building.

ANESTHESIA—John H. Tinker, M.D., Professor and Head.

BIOCHEMISTRY—Dr. Charles Swenson, Bowen Science Building.

DERMATOLOGY—John S. Strauss, M.D., Professor and Head; or Kenzo Sato, M.D., Associate Professor; Boyd Tower, General Hospital. A postdoctoral research associate for the study of electrophysiology of cultured cells.

INTERNAL MEDICINE—Openings available in all disciplines in the Internal Medicine Department, College of Medicine, University of Iowa. Contact Francois M. Abboud, M.D., Professor and Head; or Darris Goerd, Administrator. Phone (319) 356-2850.

MICROBIOLOGY—Dr. Irving P. Crawford, Professor and Head, Bowen Science Building. Research in microbial genetics and physiology, industrial microbiology, as well as mammalian virology.

NEUROLOGY—Postdoctoral associate positions are available in Cognitive Neuroscience, Neurophysiology, Neurobiology, Cerebrovascular Disease, Epilepsy, Sleep, and Neuromuscular Diseases. Antonio R. Damasio, M.D., Professor and Head, 2151 Roy Carver Pavilion.

PATHOLOGY—Dr. Richard G. Lynch, Professor and Chairman, 144 Medical Laboratories. Research activity in all areas of experimental pathology.

PHARMACOLOGY—Dr. P. Michael Conn, Chairman and Head, Bowen Science Building. Openings available in all areas of pharmacology and toxicology.

PHYSIOLOGY & BIOPHYSICS—Robert E. Fellows, M.D., Ph.D., Professor and Head, 5-660 Bowen Science Building.

RADIATION BIOLOGY—Dr. J. William Osborne, Professor and Director, 14 Medical Laboratories. Biological effects of radiation; environmental carcinogenesis and immunology; free radicals and cancer; cell proliferation in hematological and gastrointestinal systems; and radiation biochemistry of DNA base damage. Postdoctoral fellows also.

SURGERY—Dr. Robert J. Corry, Professor and Head, Colloton Pavilion. Research opportunities in neuroscience, oncology immunology, and organ transplantation.

UROLOGY—Dr. Richard D. Williams, Professor and Chairman, Carver Pavilion. A postdoctoral position is available for physicians interested in research on the study of tumor infiltrating lymphocytes from urologic cancers and their expansion *in vitro* by interleukin-2. The effect of these cells on primary and metastatic disease *in vitro*, in animal models, and ultimately in the treatment of patients with genitourinary tumors, will be studied.

The College of Medicine, University of Iowa, Iowa City, Iowa 52242, is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR, UNIVERSITY OF MINNESOTA

DEPARTMENT OF LABORATORY MEDICINE & PATHOLOGY/FAMILY PRACTICE

Applications are invited for a tenure track (N) full time position in the field of MEDICAL DECISION SCIENCE at the rank of Assistant Professor available September 16, 1987. Individuals who have an M.D. degree and are board certified or eligible in clinical pathology with interest, training and experience in quantitative methods in medical decision science are encouraged to apply. Candidates must have two years of experience in research or a fellowship in medical decision science with knowledge of decision science techniques including decision analysis and probability assessment as applied to health services or medical science problems.

The successful applicant will be expected to apply and develop quantitative decision methods for problems in health services delivery and medical science. While working with clinical and health services researchers, the selected individual will be expected to participate in the development of a decision science research cluster and build a vigorous and independent research program that can successfully compete for external funding. Additional responsibilities include medical student, resident and graduate school education in decision sciences and the direction of special projects associated with an active laboratory information systems group.

Send curriculum vitae, summary of research interests and names and addresses of three references, by July 31, 1987, to:

Chair, MDS Search Committee
Department of Laboratory Medicine & Pathology
University of Minnesota, Box 198 UMHC
420 Delaware Street SE
Minneapolis, MN 55455

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

Life Sciences

Arthur D. Little, Inc., a leading international management and technical consulting firm, is expanding its Life Sciences business in the areas of health and safety research, industrial toxicology and pharmaceutical sciences. We are seeking to fill the following positions:

Director of Health and Safety Research

Will manage Arthur D. Little's business thrust in the toxicological evaluation of chemicals, drugs and processes for Government and commercial clients. Will be responsible for R&D, technical consulting and laboratory services in this business area. A strong background in toxicology and/or pharmacology is required. Must be experienced in laboratory management under GLP guidelines.

This is a high-visibility position which offers an opportunity to help develop and implement Arthur D. Little's Life Sciences strategic plan into the 1990's.

Senior Inhalation Toxicologist

A leadership position with responsibility for business development and leading studies in inhalation toxicology. Strong technical background and publication record plus project management experience is required.

Based in Cambridge, Massachusetts, we offer state-of-the-art facilities and equipment and attractive surroundings. These positions offer opportunities for direct client contact, participation in high level planning and work in a stimulating multidiscipline environment.

Please send resume to Jeanne Crowley, Personnel Manager, Arthur D. Little, Inc., Acorn Park, Cambridge, MA 02140. An equal opportunity employer, M/F.

 **Arthur D. Little, Inc.**

Pharmacologists

Syntex is currently seeking a Department Head with specific experience in gastroenterology. Our research is related to the development of drugs for the treatment and prevention of upper and lower GI diseases.

The Department Head will lead a group of scientists working in this field and must have a PhD in Pharmacology, Biology or Physiology with 8 to 10 years' experience in gastrointestinal research and several years' experience in the management of scientific professionals.

The successful candidate must be familiar with screening procedures in GI diseases and have a strong basic research background and publications list. Research experience in isolated tissue and cell work involving the GI tract is essential.

We also have openings for PhD Researchers with 2-6 years' experience in the GI area.



Send your resume to Syntex, Dept. SL/SCI, 3401 Hillview Ave., Palo Alto, CA 94304. An equal opportunity employer.

DIRECTOR, BIOLOGY DIVISION OAK RIDGE NATIONAL LABORATORY

The Biology Division of the Oak Ridge National Laboratory is seeking applicants for the position of Director. The Division is multidisciplinary with research emphases in genetics, molecular biology, carcinogenesis, and a large program of information research and analysis. Core funding is provided by the Department of Energy. The Division comprises a staff of approximately 250 (plus 120 guests) with 35 principal investigators. In addition, the University of Tennessee Oak Ridge Graduate School of Biomedical Sciences is located within the Biology Division. Persons with outstanding reputations in research and a proven record of administering a research organization are encouraged to respond. Applicants need not be from a specific scientific discipline, but a research record in an area of emphasis in the Biology Division is advantageous.

ORNL offers an excellent benefits package and a generous relocation program plus a stimulating research environment. Salary will be commensurate with experience. Qualified applicants should forward resume, publications list, and the names of at least three references to **R. Julian Preston (Chairman, Search Committee), Oak Ridge National Laboratory, Biology Division, Building 9207, P.O. Box Y, Oak Ridge, TN 37831.**

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RESEARCH MANAGER, BIOPHYSICS

The Office of Naval Research is seeking a highly qualified individual to plan and manage an external contract research program in biophysical aspects of environmental responses. The sponsored research is conducted principally at universities and private laboratories, with research performed by leading scientists in the field. This is a Civil Service position at the GM-13, 14 or 15 grade level (\$38,727-\$69,976), depending on qualifications.

The individual selected will conceive, organize and direct research and development programs on physical and chemical processes within cellular compartments, particularly the cell membrane, that respond to such physical agents as electromagnetic fields, high pressures and extreme temperatures. The incumbent will identify new research opportunities, communicate ONR interests to the scientific community, evaluate and select research proposals for funding, manage available resources, and represent the program to Navy management. This position provides the challenge and opportunity to have a creative and significant impact on the direction and quality of research conducted at the national level. Additionally, the opportunity exists to establish or maintain an individual research program at an academic institution or government laboratory.

Applicants must have either (1) a Ph.D. or equivalent in biophysics, physics or a related field and at least one year of professional experience or (2) acquired a minimum of three years of progressively responsible professional experience. Demonstrated research experience in biophysics is preferred.

Interested persons should send a resume, list of publications and a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers or from the address below), to:

Office of the Chief of Naval Research

Civilian Personnel Division, Code 01242P

ATTN: Announcement #87-70 (S)

800 North Quincy Street, Arlington, VA 22217-5000

Applications will be accepted through 25 September 1987 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplemental forms, please call (202) 696-4705.

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POSITIONS OPEN

MAGNETOENCEPHALOGRAPHY DIRECTOR

Albuquerque Veterans Administration Medical Center and the University of New Mexico Neurology Department is seeking a clinician, preferably a neurologist, to direct new VA/Los Alamos National Laboratory/UNM clinical MEG Program. A shielded room with seven sensor SQUID will be at both the VA and LANL. Applicant must have demonstrated research productivity in neurophysiology, clinical skills in neurology, and leadership ability. Salary and faculty rank at UNM dependent upon applicant's experience and academic productivity. Send curriculum vitae and names of three references to: **Larry E. Davis, M.D., Chief, Neurology Service, Albuquerque VA Medical Center, 2100 Ridgecrest Drive SE, Albuquerque, NM 87108. An Affirmative Action/Equal Opportunity Employer.**

MEMBER OF TECHNICAL STAFF

The Jet Propulsion Laboratory is seeking a person to perform statistical analysis of a multi-year series of ocean color and sea surface temperature satellite imagery and associated surface measurements. Qualified applicant must have a M.S. in one of the earth sciences (preferably oceanography or meteorology) with 3 years of experience in analysis of earth science data and image processing. Responsibilities will include development of database management software to locate in situ data taken contemporaneously with satellite imagery, oversee continued production of satellite imagery time series, and assist with analysis of imaging spectrometer data acquired by aircraft.

Please submit résumé to:

Professional Staffing,
Department U07
Jet Propulsion Laboratory
California Institute of Technology
4800 Oak Grove Drive
Pasadena, CA 91109

An Equal Opportunity Employer M/F

POSITIONS OPEN

MOLECULAR BIOLOGY POSTDOCTORAL RESEARCH ASSOCIATE

The University of Nebraska Medical Center (UNMC) is seeking a recent molecular biology/virology Ph.D. graduate with interest in oncogenic viruses and human retroviruses to begin September 1987. Individual will participate in studies investigating the effects of viral oncogenes in human lymphoid cells, and mechanism of HIV mediated cytopathogenicity. Applications accepted until 10 August 1987. Curriculum vitae and letters of reference to: **Mario Stevenson, Ph.D., UNMC, Pathology and Microbiology, 42nd and Dewey Avenue, Omaha, NE 68105. An Affirmative Action/Equal Opportunity Employer.**

MOLECULAR IMMUNOLOGIST— BIOCHEMIST— CELL BIOLOGIST

The Laboratory of Immunology, of the National Institute of Allergy and Infectious Diseases, National Institutes of Health (NIAID/NIH), Public Health Service, intends to make an appointment at the independent scientist level. Individuals with interests and training in membrane biochemistry or cell biology are particularly sought but all qualified candidates are encouraged to apply. The successful candidate will be expected to conduct a program of independent research and will be appointed at a level appropriate to scientific qualifications. Contact: **Dr. William Paul, Building 10, Room 11N31, NIAID/NIH, 9000 Rockville Pike, Bethesda, MD 20892; telephone: 301-496-5046. U.S. citizenship required. An Equal Opportunity Employer.**

NEUROPHYSIOLOGY POSTDOCTORAL POSITION to study synaptic mechanisms and electrical excitability in vertebrate CNS neurons. Projects center on hippocampal pyramidal neurons and cerebellar Purkinje neurons in culture. Several electrophysiological techniques will be used, with the emphasis on the single-channel recording technique. Send inquiries, curriculum vitae, and names of references to: **Dr. Donna Gruol, Division of Preclinical Neuroscience, Research Institute of Scripps Clinic, 10666 North Torrey Pines Road, La Jolla, CA 92037.**

POSITIONS OPEN

MOLECULAR BIOLOGIST

The Department of Pathology and Laboratory Medicine at Emory University is seeking a molecular biologist (M.D. or Ph.D.) to work in the division of hematopathology. The individual is expected to develop diagnostic molecular pathology and an independent research program in collaboration with the existing hematopathology faculty members. The rank (instructor/assistant professor) and salary will be commensurate with the experience of the individual. Send curriculum vitae and names of three references to: **Dr. Kenneth W. Sell, Chairman, Department of Pathology and Laboratory Medicine, Emory University School of Medicine, Atlanta, GA 30322. Closing date is 31 August 1987. Emory University is an Equal Opportunity Employer.**

NEUROCHEMISTRY: ASSISTANT/ASSOCIATE PROFESSOR

Applications are invited for a tenure-track position available spring, 1988. Candidates should have a demonstrated ability to conduct independent research. Preference will be given to those working in sensory systems. Rank and salary will be commensurate with qualifications. Send curriculum vitae, statement of research interests, representative reprints, and names of three references by 1 December 1987 to: **Dr. Robert B. Barlow, Jr., Institute for Sensory Research, Syracuse University, Syracuse, NY 13244. Syracuse University is an Affirmative Action/Equal Opportunity Employer.**

PEDIATRICIAN—The Children's Hospital of Philadelphia is recruiting a physician for a joint appointment in the Division of Biochemical Development and Molecular Diseases and the Division of Genetics whose primary responsibility would be diagnosis and treatment as well as clinical investigation of patients with inherited metabolic diseases. Applicants should have 8 to 10 years experience with certification in medical genetics, and qualify for appointment at the associate professor level in the Department of Pediatrics, University of Pennsylvania School of Medicine. *An Equal Opportunity/Affirmative Action Employer.* Send curriculum vitae to: **Stanton Segal, M.D., The Children's Hospital of Philadelphia, 34th and Civic Center Boulevard, Philadelphia, PA 19104.**

NEW ENGLAND BIOLABS

POSTDOCTORAL POSITIONS

New England Biolabs, a pioneer and leader in biotechnology located twenty miles north of Boston is seeking applicants for postdoctoral positions in either:

MOLECULAR PARASITOLOGIST, with experience in molecular biology and/or immunology. Projects will involve the cloning and characterization of filarial antigens.

PROTEIN CHEMIST, with experience in protein purification, characterization and sequencing with substantial use of HPLC. To perform modification experiments directed towards type II restriction system mutagenesis. Interest in nucleic acid-protein interactions a plus.

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

Candidates please submit curriculum vitae with three references to:

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



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Biochemist/Cell Biologist

Antiprotozoal Research

Pfizer Central Research has an immediate opening in its anticoccidial discovery program. We have state of the art *in vitro* cultivation system for the causative agent of coccidiosis (intracellular protozoa of the genus *Eimeria*), and we now seek an individual to conduct drug discovery research using this model.

Your responsibilities will include identifying new targets for chemotherapy by studying the physiology of the organism and the mechanism of drug action. You must possess a PhD plus two or more years of postdoctoral experience in eukaryotic biochemistry/cell biology research.

This position offers an excellent opportunity for professional recognition and career growth. We also offer competitive compensation, benefit package and the opportunity to live in an attractive Connecticut shore community. Please send resume and description of research accomplishments to: Dr. Jerry K. Larson, Manager of Employment, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



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ENVIRONMENTAL ANALYST

THE AFRICAN DEVELOPMENT BANK, a multilateral development finance institution based in Abidjan, Cote D'Ivoire, seeks an Environmental Analyst for a 2-year personal services contract to assist in policy formulation on natural resources and environmental issues. Incumbent will participate in planning, design and evaluation of bank projects and in compilation and dissemination of environmental data.

EDUCATION/EXPERIENCE: Graduate Degree in Applied Ecology, Natural Resource Economics, Physical Geography or related field with preference given to candidates with specialized course work in Soil Science, Land/Water Resource Planning, Forestry, Rangeland Management, Aquatic-Terrestrial-Human Ecology, Fisheries, Remote Sensing, International Development, Statistics, Computer Science or other fields directly applicable to Natural Resources/Environmental Analysis. Minimum 5 years in applied, multidisciplinary project-related Natural Resources Analysis required. Minimum 2 years experience in developing countries and familiarity with planning, development and implementation of large, donor-funded projects in the tropics. Basic knowledge of data storage/retrieval systems desirable. Broad familiarity with technical characteristics of African terrestrial, aquatic, coastal and montane systems essential. Fluency in either English or French, with strong working knowledge of the other is required.

Candidate must be U.S. citizen or permanent U.S. resident. Financed under a USAID grant, contract offers competitive salary paid in U.S. dollars. Excellent fringe benefits. Interested persons should forward detailed CV, salary history and references by August 7, 1987 to:

WINFIELD S. COLLINS, USAID – REDSO/WCA, ABIDJAN, DEPARTMENT OF STATE, WASHINGTON, D.C. 20520

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R&D INSTRUMENTATION

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Saudi Arabia is one of the most stable and safe countries in the Middle East! You would be joining over 50,000 other Americans presently enjoying the adventure and relaxation of fishing and diving, as well as camping in our unspoiled deserts.

In addition to an outstanding, tax-free salary you will also receive free, modern housing with recreational facilities—swimming pool, tennis courts, etc. Free medical care, schooling for children, transportation allowance, and 40 days of annual paid vacation with round-trip to U.S. are also provided.

Our current needs are:

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- **Membrane Desalting Researcher**
 - **Assistant Membrane Desalting Researcher**
 - **Corrosion Researcher**
 - **Assistant Corrosion Researcher**
 - **Assistant Marine Biologist**
 - **R&D Instrumentation Specialist**

For Researchers, a PhD in the relevant field and a minimum of 7 years of applied research experience in seawater desalting, thermal power, or a relevant field is required. For Assistants, a PhD or MS with a; minimum of 2 years of applied research experience in the above areas is required. For R&D Instrumentation Specialist, a BS in Engineering, along with a minimum of 7 years of experience in R&D laboratory instrumentation is required.

The research openings are located in a newly constructed, ultramodern R&D facility of the Saline Water Conversion Corporation in Jubail. Local interviews will be arranged. Selected candidates can expect to begin work in December '87. For consideration, please send your resume, including current salary and desired position, to: **A. Rashid Khan, P.O. Box 6265, Albany, CA 94706. EOE**

SENIOR SCIENTIST, SCIENTIST, POSTDOCTORAL POSITIONS

The Osaka Bioscience Institute invites applications for the above positions, comprising several in all. Founded as an Osaka Municipal Centennial Project, the Institute is scheduled to open in October 1987, with the objectives of conducting original basic bioscientific research, thereby to become a world-class center conducive to the further advancement of the biosciences. Dr. A. Kornberg and Dr. J. Vane, both Nobel Prize recipients, as well as other prominent Japanese and foreign researchers, have already agreed to serve as Special Advisers or Advisory Board members. The Institute will be headed by Dr. Osamu Hayaishi, a leading biochemist, under whom more than 30 excellent researchers from all over the world will be engaged in advanced research. The Institute building, currently under construction in the suburb of Osaka, Japan's second largest city, will be fully furnished with the most up-to-date equipment. The location, in the vicinity of Osaka and Kyoto Universities, affords an ideal research environment. Applicants for the above positions should have research experience in biochemistry, molecular biology, cell biology, immunology, bioregulation, or neuroscience. Employment will commence in October 1987 or April 1988, with terms of employment as follows: Postdoctoral 2 ~ 3 years (extendable); Senior Scientist (SS), Scientist (S), 3 ~ 5 years. Annual salary for Postdoctorals will be ¥2,640,000; for SS and S, salary will be commensurate with experience. Travel expenses will be paid, in the case of Postdoctoral candidates, for the individual only; and for successful SS and S candidates, for the individual and family.

Applicants for these positions should submit curriculum vitae, list of publications, reprints of major publications and 3 letters of recommendation. Address all inquiries/required documents to: **Akira Kodama, Manager, General Affairs Section, Osaka Bioscience Institute, 3F, Semba Center Bldg. No. 7, 3-2, Semba-chuo, Higashi-ku, Osaka 541, Japan, Tel: 06-243-2326 or 2327.**

MEMBER OF TECHNICAL STAFF

The Earth and Space Sciences Division of the Jet Propulsion Laboratory, California Institute of Technology is establishing an interdisciplinary research group in Ecology, Hydrology and Land Surface Climatology, which will carry out an integrated research program on the land phase of the hydrologic cycle and its interaction with the earth's climate. Research areas to be represented are surface and ground water hydrology including snow and ice, evapotranspiration, plant stress, soil moisture, precipitation and precipitation chemistry, heat and moisture transfer in the planetary boundary layer, and biogeochemical cycling. Because of the importance of remote sensing in solving these research problems, especially at regional and global scales, we are especially interested in a qualified senior scientist who can conduct a vigorous research program involving novel ways of incorporating airborne and satellite remotely sensed data into models of these processes and lead the activity of a research group in this area. Candidates must have a PhD in a related field, a minimum of 5 years experience, and have a strong research and publication record. Inquiries and resumes should be directed to: **Mr. Donald L. Young, Dept. U11, M/S 183-501, (818) 354-5420. Jet Propulsion Laboratory, California Institute of Technology, 4800 Oak Grove Drive, Pasadena, CA 91109.** An Equal Opportunity Employer M/F/H/V.

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The National Research Council is Canada's leading federal research organization. NRC's laboratory projects cover most areas of the physical sciences, natural sciences and engineering.

Applicants for Research Associateships should have recently acquired a Ph.D. in the natural sciences or a Master degree in an engineering field or expect to obtain the degree before taking up the Associateship.

Associateships are open to nationals of all countries although preference will be given to Canadians.

Research Associates will be offered appointments to the staff of the National Research Council on a term basis and will be offered salaries and benefits currently available to members of the continuing staff. As a guide, the current Ph.D. recruiting rate is \$33,661 per annum.

The initial appointment will normally be for a two-year term and may be renewed, subject to the Associate's performance and subject to the requirements of the Division.

Special Application forms may be obtained from the Research Associates Office, National Research Council of Canada, Ottawa, Ontario, Canada, K1A 0R6.

Closing date: 30 November 1987

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To explore a role on our dynamic team, located in suburban Washington D.C., please send curriculum vitae and a list of three professional references to:

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Smith Kline & French Laboratories, an international leader in the health care industry located near Valley Forge, PA, offers excellent professional career opportunities for individuals with experience in scientific computing. We are seeking individuals who can apply leading edge computer technology to the areas of life sciences, chemistry, pathology/toxicology, molecular biology, biopharmaceutical and clinical research. You will have state-of-the-art technology at your disposal, including one of the largest Philadelphia area VAX clusters, a wide range of work stations, a facility-wide local area network, WANG VS systems and a diverse set of application tools encompassing 4th generation DBMS, robotics, expert systems, laboratory information management systems, real-time data collection/analysis, and personal productivity tools at the PC level. By joining our group of dedicated, team and results-oriented professionals, you will participate on or lead project teams comprised of scientists and computer specialists working together to achieve R&D scientific computing goals.

If you have computer science experience applicable to the following positions we encourage you to submit your resume indicating career interests in SK&F.

- **SENIOR SYSTEMS ANALYST** - VMS systems software development, consulting, performance analysis and capacity planning for large VAX cluster and distributed systems.
- **SENIOR OPERATIONS ANALYST** - Administers international, multi-vendor electronic messaging network. Provides senior Wang VS systems technical support for multi-VS300 Wang network.
- **COMMUNICATIONS ANALYST** - Supervise the planning and operational support of international, multi-vendor data communications network (leased line and packet-switched). Manage large local area network supporting more than 1700 connections, DECnet, Ethernet, Wangnet and other facilities.
- **SENIOR SCIENTIFIC ANALYST PROGRAMMER** - Database management and application development, knowledge of relational DBMS required; experience in Ingres preferred.
- **EDP CLINICAL SCIENTIFIC MANAGER** - EDP scientific liaison with Clinical R&D, facilitating and insuring delivery of EDP computing support and technologies for drug development projects.
- **MANAGER, MICROCENTER** - Provide focused end-user and microcomputing support; manage R&D MicroCenter activities (PC hardware/software, work stations and communications).
- **PRINCIPAL SCIENTIFIC ANALYST** - Develop and implement scientific computing software systems for research applications.
- **PRINCIPAL SCIENTIFIC ANALYST** - Provide scientific applications computing support/programming.
- **SR. SCIENTIFIC PROGRAMMER ANALYST** - Provide scientific applications computing support/programming.

We offer an excellent salary, benefits and relocation package. Please forward your c.v. to George P. Kissell, Jr., Manager, Personnel Relations, G0095, SK&F Laboratories, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an equal opportunity employer, M/F/H/V. NO PHONE CALLS PLEASE.

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POSITIONS OPEN

We are looking for an experienced **NEUROPSYCHOLOGIST** to play a central role in the development of a new Division of Neuropsychology at a major teaching medical center in Philadelphia. Responsibilities will include supervision of a well-staffed clinical service involving neurological, neurosurgical and psychiatric cases. In addition, ample opportunities will exist to develop research, and participate in the programmatic development of a major neuropsychology center in an academic, intellectually exciting environment.

Candidates must have or be eligible for Pennsylvania licensure in psychology. Extensive training and experience in clinical neuropsychology are required as well as substantial background in and commitment to research. Faculty rank will be commensurate with academic credentials. Salary and benefits competitive.

Please address a letter of intent, curriculum vitae, four letters of reference and any supporting materials to:

Elkhonon Goldberg, Ph.D.
Director, Division of Neuropsychology
The Medical College of PA/EPPI
3200 Henry Avenue-171A
Philadelphia, PA 19129

Chiron, a recognized leader in the biotechnology industry, has a position available immediately. This position offers outstanding opportunities for a qualified **Ph.D. SCIENTIST**, including excellent benefits.

A successful candidate will work in purification and characterization of recombinant proteins and peptides to be used in human pharmaceuticals. Applicants should have a Ph.D. in biochemistry with 1 to 3 years of postdoctoral experience. A strong background in characterization of growth factors is a plus.

Please submit curriculum vitae with a description of relevant interest and experience, together with the names of three references. Send to: **Mrs. D. Wyles, Chiron Corporation, 4560 Horton Street, Emeryville, CA 94608.**

PHYSICS AND ASTRONOMY—One-year teaching position for 1987 to 1988 academic year. Applicants must have a Ph.D. Successful candidate will be expected to teach introductory physics and/or astronomy courses and associated laboratories. Screening of applicants will continue until position is filled. Send curriculum vitae and three letters of reference to: **Office of Academic Affairs, Physics and Astronomy Search, Western Kentucky University, Bowling Green, KY 42101. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL ASSOCIATE position available immediately to participate in research studies on intracellular protein degradation using *Physarum polycephalum*. Ph.D. in biochemistry, nutrition or related area, and some postdoctoral experience are required. Experience in enzymology, protein chemistry, and recombinant DNA techniques is desirable. Salary negotiable from \$19,000 per year. Send curriculum vitae and three letters of reference to: **Dr. Michael N. Kazarinoff, Division of Nutritional Sciences, Cornell University, Savage Hall, Ithaca, NY 14853** prior to 1 September 1987. *Cornell University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW

Position is available in the Molecular and Cellular Vascular Research Laboratory, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School. The laboratory emphasizes a multidisciplinary approach to the studies of cardiovascular regulation. A 2-year training program in molecular and cell biology of the blood vessel and/or hypertension is available. The applicant must hold a Ph.D. or M.D. with previous training in molecular or cell biology. Experience in the cardiovascular area is not necessary. For inquiries, contact: **Dr. Victor J. Dzau, Molecular and Cellular Vascular Research Laboratory, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. Women and members of minorities are encouraged to apply.**

POSTDOCTORAL POSITION available immediately to produce and characterize monoclonal antibodies to enteric viruses of animals, and use these for viral epitope mapping and strain differentiation. Experience in virology and with monoclonals is required. Send curriculum vitae and three references to: **Dr. Linda Saif, Food Animal Health Research Program, Ohio State University, Ohio Agricultural Research and Development Center, Wooster, OH 44691.**

Research Scientist Neuroanatomist

G.D. Searle, a worldwide leader in pharmaceutical research and development, is seeking a qualified neuroanatomist to join a multidisciplinary drug discovery team in the Department of Central

Nervous System Diseases Research. The current research programs emphasize novel and innovative approaches to drug design for the treatment of nervous system disorders. The responsibilities will include:

- Establishing and supervising a neuroanatomy laboratory for the evaluation of tissues at the light and electron microscopic level
- Designing, evaluating and utilizing animal models of ischemic brain damage and neurodegenerative diseases
- Collaborating with other investigators and participating as an integral member of project teams in the determination of research direction

This position requires a Ph.D. with minimum 3-5 years' post-doctoral experience in neuroanatomy. The qualified candidate will demonstrate mastery of neuroanatomy, will have experience in neurochemistry, neuropharmacology or neurotoxicology and have utilized state-of-the-art methodologies in receptor autoradiography, neurotransmitter pathway tracing or morphometry. Must have record of publication demonstrating ability to undertake independent and creative research.

This position represents an opportunity to join during the growth phase of a dynamic company. The successful candidate will be offered an excellent salary and benefits package. The position is available at the St. Louis site of G.D. Searle R&D and is housed in a newly built, modern Life Sciences facility. The location offers access to a variety of cultural and recreational facilities, three major universities and a leading neuroscience community. To apply in strict confidence, please forward your resume to: **Ms. Joan M. Lineberry — UWM09Z — G.D. Searle & Co. R&D; c/o Monsanto Company — BB4D; 700 Chesterfield Village Parkway; St. Louis, MO 63198. An Equal Opportunity Employer M/F/H/V.**

SEARLE



EniChem Americas Inc.

EniChem, part of ENI (Ente Nazionale Idrocarburi), is establishing a Plant Biotechnology Group of approximately 50 scientists in the Princeton, New Jersey area. The group intends to apply an integrated approach to the improvement of crops for U.S. and international markets.

We are interested in Ph.D., M.S. or B.S. level candidates who can apply technical expertise in Molecular Biology, Metabolic Biochemistry or Cell Biology to the project areas of nitrogen assimilation/utilization or crop protection. We have immediate openings for candidates who have experience with monocot protoplasts, transformation technology and/or the expression of genes in plants.

Send Curriculum Vitae and cover letter to:

**Director of Personnel
ENICHEM AMERICAS INC.
1221 Avenue of the Americas
New York, N.Y. 10020**

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STATE UNIVERSITY OF NEW YORK AT
STONY BROOK

BIOCHEMISTRY, CELL AND MOLECULAR
BIOLOGY OF METABOLIC DISEASES

POSTDOCTORAL FELLOWSHIPS FOR Ph.D's & M.D.'s

Postdoctoral positions are available within a multidisciplinary, interdepartmental program of The Diabetes & Metabolic Diseases Research Group at Stony Brook, supported by an NIH Institutional Training grant. Research interests of some of the 20 faculty trainers are:

Paul Adams	(Neurobiology)	Excitability of nerve cells.
William Benjamin	(Physiology & Biophysics)	Mechanisms of insulin action.
Michael Berelowitz	(Endocrinology)	Hypothalamic peptide regulation of growth hormone.
Harvey Brandwein	(Pharmacology)	Cyclic nucleotides and intestinal ion flux.
Joel Brown	(Washington Univ. affiliate)	Transduction in photoreceptors.
Joan Brugge	(Microbiology)	c ^{src} proto-oncogene and cell regulation.
Vincent Cirillo	(Biochemistry)	Purification/reconstitution of sugar transporters.
Ira Cohen	(Physiology & Biophysics)	Patch-clamping in cardiac cells.
Paul Fisher	(Pharmacology)	Karyoskeletal structure and function.
Craig Malbon	(Pharmacology)	Structure & biology of receptors and G-proteins.
Robert Olson	(Medicine, Pharmacology)	Mode of action of isoprenoid lipids.
Simon Pilikis	(Physiology & Biophysics)	Molecular mechanisms of hormone action.
Edward Reich	(Pharmacology)	Autocrine regulation; parasite biochemistry.
Leon Sokoloff	(Pathology)	Skeletal and articular aging.
Sidney Strickland	(Pharmacology)	Biochemistry of mammalian differentiation.
Linda Tseng	(Medicine-OB/GYN)	Reproductive molecular endocrinology.
William Van der Kloot	(Physiology & Biophysics)	Regulation of neurotransmitter packaging.
David Williams	(Pharmacology)	Regulation of lipoprotein gene expression.
Eckard Wimmer	(Microbiology)	Analysis of polypeptide processing: poliovirus receptor.

Send letters of reference, c.v., a description of research interests, training faculty of interest, to:

Dr. C.C. Malbon, Program Director
Diabetes & Metabolic Diseases Research Training Program
Health Sciences Center - State University of New York
Stony Brook, Long Island, New York 11794-8651

THE SAINSBURY LABORATORY
JOHN INNES INSTITUTE
NORWICH

SENIOR SCIENTISTS

This new Laboratory is being created with a grant from one of the Sainsbury family charitable trusts which will provide upwards of a million pounds per year for at least two five-year research cycles to establish a new programme in molecular plant pathology. The Laboratory will be provided with purpose built accommodation at the John Innes Institute, which is close to the University of East Anglia and occupies modern laboratories and offices with excellent facilities for research including glasshouses and experimental ground.

Applications are invited for the three leading scientific posts in this Laboratory.

The programme of the Laboratory will be molecular plant pathology in its broadest sense. Applicants should submit proposals outlining a scientific programme with immediate and longer term plans. Whilst recognising that this will be of interest to scientists with a proven research record in this field, the opportunities are also available to scientists from other disciplines able to bring new approaches to the subject.

The senior scientists will have generous funds available to them and flexibility in planning their programmes and appointing staff. They will be members of the Council which is responsible for the Laboratory and which includes leading international scientists. They will have a key role in the setting up of a research centre of international reputation, which has been established in such a way as to allow research to be carried forward with adequate resources and a minimum of administrative difficulties. It is hoped that the laboratory will provide facilities for sabbatical visits, training and other collaborations.

Salary and other benefits will be negotiable and will be competitive on an international basis.

Further particulars may be obtained from the Secretary, John Innes Institute, Colney Lane, Norwich, Norfolk, NR4 7UH, England, U.K.

RESEARCH SCIENTIST
Space Physics

Lockheed Missiles & Space Company is seeking a research scientist to conduct satellite experiments involving energetic particles and bremsstrahlung X-rays in space. You will also be responsible for analyzing and interpreting the results of these experiments.

The successful candidate will have a PhD or equivalent with experience in managing space physics experiments from satellites.

This position is in the Space Sciences Laboratory at the Lockheed Palo Alto Research Laboratory. The energetic particles and fields group in the Space Sciences Laboratory is involved in several NASA and DoD programs.

Along with the extraordinary career opportunities, we offer recreational and other outstanding benefits to help you make the most of your life. To take advantage of all we offer, send your resume to Lockheed Missiles & Space Company, Professional Staffing, Dept. 584HBLM, P.O. Box 3504, Sunnyvale, CA 94088-3504. We are an equal opportunity, affirmative action employer. U.S. citizenship is required.

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POSITIONS OPEN

POSTDOCTORAL POSITION for research on the role of airborne aerosol particles in (i) obstructive lung disease and/or (ii) atmospheric chemistry. Ph.D. in biomedical field or atmospheric chemistry required. Experience with analytical electron microscopy and computer modeling is desirable. Send résumé, transcripts, reprints, statement of research interests, and names of three references to: **P. R. Buseck, Chemistry Department, Arizona State University, Tempe, AZ 85287. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available September 1987 to explore the mechanism for the plasma lipid-lowering effects of dietary *n*-3 polyunsaturated fatty acids (from fish oil) through effects on hepatic lipid metabolism. Position will be working with **Dr. David A. Otto**, Division of Research, Department of Medical Education. Applicant should have a recent Ph.D. with a strong background in biochemistry and intermediary metabolism and with specific research experience in lipoprotein chemistry and metabolism. Background in primary liver cell culture and/or liver perfusion desirable. Salary commensurate with experience. Send curriculum vitae, statement of research experience and interest, and names of three references by 1 August 1987 to: **The Baptist Medical Centers, Human Resources Department, 3201 4th Avenue South, Birmingham, AL 35222. Equal Opportunity Employer.**

POSTDOCTORAL POSITION to study gene expression and intracellular localization of alpha-1-antitrypsin in normal and mutated forms in cultured liver cells. Experience would be useful in areas of molecular cloning, gene transfection, liver gene expression, chromatin structure, and glycoprotein metabolism. Send curriculum vitae with names of two references to: **Edward M. Johnson, Brookdale Center for Molecular Biology and Department of Pathology, The Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION available now, but preferably to start in December 1987, to study tumor associated antigens such as the nerve growth factor receptor. Current work includes the isolation, microsequencing, and the molecular cloning of these antigens to provide a comprehensive understanding of the antigens and their role in the transformed phenotype. Experience in monoclonal antibodies, membrane proteins, and DNA technology desirable. Support available in NIH scale. Submit curriculum vitae and three letters of recommendation to: **Dr. Alonzo H. Ross, The Wistar Institute, 36th and Spruce Streets, Philadelphia, PA 19104. Equal Opportunity Employer, M/F.**

POSTDOCTORAL POSITION available immediately for multidisciplinary project studying the therapeutic potential for porphyrins and related macrocycles for photodynamic therapy of tumors. A Ph.D. in biochemistry or pharmacology preferred, with cell biology preferred, with cell biology background. Experience with general biochemical techniques and various types of chromatography (HPLC, TLC) needed. Porphyrin methodology a great plus. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Martha Kreimer-Birnbaum, Director, Research Department, St. Vincent Medical Center, 2213 Cherry Street, Toledo, OH 43608. St. Vincent Medical Center is an affiliated teaching hospital of the Medical College of Ohio. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION CELLULAR TOXICOLOGY

Position available immediately for a 1-year appointment in the University of Connecticut Toxicology Program in collaboration with Pfizer Central Research.

Candidates must have a recent doctorate in, or closely related to, toxicology and should possess strong research interests in mechanisms of toxicity at the cellular level. Publication of research will be encouraged.

Submit curriculum vitae, transcripts, and arrange for three letters of recommendation to be sent to: **Chairman, Search Committee, Box 26, Drug Safety, Pfizer Central Research, Groton, CT 06340 before 31 July 1987. We are an Affirmative Action/Equal Opportunity Employer, M/F. (Search #7A527)**

THE UNIVERSITY OF CONNECTICUT

POSITIONS OPEN

POSTDOCTORAL POSITION CARDIOVASCULAR RESEARCH. A postdoctoral position is available 1 September 1987 in the area of neural control of the circulation. Interested individuals should have a background in cardiovascular control mechanisms or related areas. Experience with conscious, chronically instrumented animals is helpful. Areas of research in this laboratory revolve around the function of cardiovascular reflex mechanisms in normal and pathological states. Interested individuals should send a current curriculum vitae and names of three references to: **Irving H. Zucker, Ph.D., Professor, Department of Physiology and Biophysics, University of Nebraska College of Medicine, 42nd and Dewey Avenue, Omaha, NE 68105. The University of Nebraska is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS

The Chesapeake Biological Laboratory (CBL), part of the University of Maryland's Center for Environmental and Estuarine Studies, announces laboratory postdoctoral positions in the following areas: (i) sediment organic geochemistry and (ii) molecular biology-toxicology. Successful candidates will not only interact with CBL faculty on existing research projects but also make individual contributions to expanding programs in marine geochemistry and marine environmental chemistry/toxicology. These positions are for 12 months, and are renewable for a second year. Interested individuals are encouraged to contact individual faculty or the head of laboratory at CBL for additional information on faculty interests and research programs. Applications should include a statement of research expertise and interests, curriculum vitae, and names of three references that CBL can contact. Applications received before 1 October 1987 will be given full consideration. Awards will be announced by 1 November 1987. Date of assumption of position is somewhat flexible. Please send further inquiries and applications to:

**Dr. Kenneth R. Tenore
Chesapeake Biological Laboratory
P.O. Box 38
Solomons, MD 20688**

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

POSTDOCTORAL POSITIONS IN IMMUNOCHEMISTRY. One position open immediately and one position available January 1988 to develop immunoassays for natural and human-made toxins in a broadly based, interdisciplinary study. Successful candidates will be expected to address fundamental questions in analytical, bio-, organic, and/or immunochemistry. Send application letter, curriculum vitae, relevant publications, and names of three references to: **Mark Kurth, Department of Chemistry or Bruce D. Hammock, Departments of Entomology and Environmental Toxicology, University of California, Davis, CA 95616 by 15 August 1987. The University of California is an Affirmative Action/Equal Opportunity Employer.**

THREE POSTDOCTORAL POSITIONS IN PLANT MOLECULAR/CELL BIOLOGY available to study (1) effects of the *alc* ripening mutant on regulation of tomato ripening, (2) modification of organellar DNA in *Brassica* cybrids, (3) isolation of chromosomes from cell cultures for construction of chromosome region-specific libraries in tomato. Experience with molecular techniques (1, 2) or cell biology (3) required. Experience with plant genetics (1, 2) or tissue culture (2, 3) desirable. Send résumé and three letters of reference to: **M. A. Mutschler (1, 2) or E. D. Earle (2, 3) Department of Plant Breeding, Cornell University, Ithaca, NY 14853, or telephone: 607-255-1660 (M.A.M.) or 607-255-3102 (E.D.E.).**

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION IN MOLECULAR GENETICS to study extracellular protein secretion in enteric bacteria. Research will focus on *Serratia marcescens* and *Escherichia coli*, using a variety of molecular biology, genetic, and biochemical approaches. Laboratory and department are well equipped and salary is competitive. Send curriculum vitae and letters of reference to: **Dr. Michael Benedik, Department of Biology, Texas A&M University, College Station, TX 77843.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS at Tufts University Medical School—New England Medical Center (NEMCH). The laboratory of **Dr. Elliot Androphy** studies the mechanism of transformation by the papillomavirus E6 gene [*Science* 230, 442 (1985)]. Techniques of DNA and protein biochemistry are currently used. **Dr. Allan Oseroff's** laboratory is developing a new approach to selective, laser-induced killing of malignant cells using photosensitizers coupled to modified monoclonal antibodies or antibody fragments. Available techniques include monoclonal antibody immunochemistry and pharmacology, photobiology, and laser medicine. Send résumé, current research interests and name and phone number of references to the respective investigator at: **NEMCH, Box 114, 750 Washington Street, Boston, MA 02111.**

POSTDOCTORAL RESEARCH ASSOCIATE POSITION: available 1 August 1987 to participate in 5-year NIH-funded research, pursuing studies on heart development in cardiac mutant salamanders and cardiomyopathic hamsters using recombinant DNA and molecular biology approaches. Submit curriculum vitae, reprints, and have three letters of reference sent to: **Dr. Larry F. Lemanski, Professor and Chairman, Department of Anatomy and Cell Biology, State University of New York, Health Science Center at Syracuse, 750 East Adams Street, Syracuse, NY 13210. An Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE: The Physiology Department at the Armed Forces Radiobiology Research Institute (AFRRI), which is a command of the Defense Nuclear Agency, is seeking candidates for a research biologist/physiologist/pharmacologist position (one position). He/she will participate in electrophysiological studies on free radical and oxidative damage in hippocampal slice preparation. Requirements are a Ph.D. or equivalent experience, strong publication record, and independent research experience. This position, available immediately, is a 3-year civil service appointment. Salary ranges \$27,172 to \$35,326. To apply for this civil service position, send curriculum vitae or SF-171; and the names of three references to: **Armed Forces Radiobiology Research Institute, Civilian Personnel Office, Bethesda, MD 20814-5145 not later than 31 August 1987. Reference announcement number AFRRI 8/87. Direct inquiries to: Dr. T. Pellmar 202-295-1346 or Joann Kelleher, Personnel Management Specialist 202-295-1426. U.S. citizenship is required. AFRRI is an Equal Opportunity Employer.**

The University of Adelaide South Australia invites applications from both women and men for a **RESEARCH ASSOCIATE** available from early 1988 at the Waite Agricultural Research Institute. The Associateship may be held in any department of the Waite Agricultural Research Institute, namely the Departments of Agricultural Biochemistry, Agronomy, Animal Sciences, Entomology, Plant Pathology, Plant Physiology, Soil Science and the Biometry Section. Applicants should have gained their Ph.D. qualification elsewhere than at the University of Adelaide. The Associateship will be tenable for 2 years from the date of commencement, and will not be renewable; no age limit governing eligibility has been specified but normally a 10 year limit since the award of the most recent higher degree qualification will apply. **TRAVEL PROVISION:** The University will provide, for a person taking up appointment from outside South Australia, an air fare to Adelaide by the shortest practicable route. There is no provision for transfer of personal effects. Annual salary: AU\$24,535 × 5 to AU\$28,029. *It is University policy to encourage women to apply for consideration for appointment to tenurable academic appointments.* Holders of full-time tenured or tenurable academic appointments have the opportunity to take leave without pay on a half-time basis for a specific period of up to 10 years where this is necessary for the care of children. **APPLICATIONS** must be made on the prescribed form obtainable, together with a leaflet outlining conditions of appointment, from the **Senior Assistant Registrar (Personnel) of the University of Adelaide** with whom applications must be lodged, **GPO Box 498, Adelaide, South Australia, 5001, Telex UNIVAD AA 89141 not later than 28 August 1987. The University is an EO/Equal Opportunity Employer.**

BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc. is a major researcher, developer, manufacturer and marketer of prescription and over-the-counter drugs. The expansion of our drug discovery efforts has created the need for two key additions to the Biochemistry Department.

Molecular Biologist

This position requires a Ph.D in Molecular Biology, Virology, or Biochemistry and relevant post-doctoral experience. The successful candidate will have experience in RNA viruses, pro and eukaryotic expression systems and will exhibit leadership skills in their field of expertise.

Enzymologist

This position requires a Ph.D in Biochemistry and two or more years post-doctoral experience. Additional requirements include experience in enzymology with emphasis on proteases, protein purification, analytical techniques, HPLC of proteins and peptides, enzyme mechanism analyses and design of assays.

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For immediate consideration please submit your curriculum vitae indicating the position applying for to: Dept. JC-1J, R & D, BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc., 90 East Ridge, P.O. Box 368, Ridgefield, CT 06877. An equal opportunity employer m/f/h/v.



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RESEARCH INVESTIGATOR

Pulmonary Diseases

G.D. Searle is a worldwide leader in the pharmaceutical industry, with a commitment to quality, innovation and leadership in new product research and development. That commitment has now created this opportunity in the Research and Development Division.

Responsibilities include the development and implementation of pulmonary disease models for use in pharmacological research to identify new therapeutic treatments for immunoinflammatory pulmonary diseases.

Qualified candidates will have a Ph.D. in Physiology, preferably of the Respiratory System, or another life science, or an MS plus 4-5 years experience with in-vivo animal models of pulmonary physiology. Knowledge of pulmonary function testing and immunology of the lung is also required. In addition, experience with small animal models, ability to perform minor surgical procedures, injections and experience using laboratory computers is desired. Experience with pulmonary function measurement, and instruments used, is preferred.

This position offers an excellent salary and benefits package. Searle is located in a northern suburb adjacent to Chicago. Our location offers access to a variety of cultural and recreational facilities, several fine universities and an active science community. Qualified candidates may respond in strict confidence to: **G.D. Searle & Co., R&D Professional Staffing, Dept. DW, 4901 Searle Parkway, Skokie, IL 60077.** An Equal Opportunity Employer.

SEARLE

SENIOR GENETIC TOXICOLOGIST

FMC CORPORATION's Chemical R&D Center, located in Princeton, New Jersey, has a position in our Toxicology Group for an individual to carry out mutagenicity testing.

Major position responsibilities will include: daily operation of the genetic toxicology facility; scheduling, prioritizing, and conducting genetic toxicology testing; coordinating the selection/implementation of new test procedures.

Major position requirements: a minimum of 2 years experience with tissue culture of mammalian cells; 3-5 years experience with gene mutation assays; Ph.D. or M.S. in Toxicology, Biochemistry, Molecular Biology, Genetics, or a related field. Experience with cytogenetics desirable.

FMC CORPORATION offers excellent compensation commensurate with your background, a full range of corporate benefits and advancement potential within an exciting, challenging work environment. Applicants should send a resume with salary history/requirements to: **Employment Supervisor, FMC CORPORATION, Chemical R&D Center, P.O. Box 8, Princeton, NJ 08543.** An Equal Opportunity Employer, M/F.

FMC



Molecular Biologist

BioTechnica International, Inc., a company specializing in the development of next-generation technologies in the areas of microbial production systems, biochemical engineering and agricultural biotechnology, has an opening at its Cambridge, Massachusetts facility for a highly motivated Research Scientist.

BTI is seeking a well-trained Molecular Biologist with three to ten years of experience in one or more of the following areas: yeast molecular biology, yeast genetics, recombinant DNA techniques, protein purification, expression of heterologous proteins in yeast. However, any highly skilled individual with a Ph.D. in a related area will be considered.

BTI offers a highly competitive salary, excellent employee benefits, and opportunities for professional growth in a stimulating and productive environment. Please send a letter of application referring to position number RS 14 with a resume and the names of three references by August 31, 1987 to:

Personnel Department
BioTechnica International, Inc.
85 Bolton Street
Cambridge, Massachusetts 02140

BIOTECHNICA INTERNATIONAL, INC.

Postdoctoral Scientist Investigative Toxicology

The Investigative Toxicology Department of Smith Kline & French Laboratories located in suburban Philadelphia, PA is seeking a Postdoctoral Scientist to conduct original research into mechanisms of cardiotoxicity using *in vivo* and *in vitro* techniques.

The successful candidate will:

- correlate alterations in cardiac function *in vivo* with biochemical changes in heart tissue upon exposure to cardiotoxic agents.
- continue the ongoing work in our biochemical toxicology laboratories to study the role of calcium and phospholipid metabolism in cardiotoxicity.

Candidates should have:

- Ph.D. in pharmacology, toxicology or related discipline with 0-2 years postdoctoral experience.
- Knowledge of cardiac cell culture techniques and familiarity with biochemical techniques in cardiac tissue.
- Excellent verbal and written communication skills.

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. Please forward your C.V. and the names of three references to: Mary Ann McCarry-C0032-Smith Kline & French Laboratories, Research & Development, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.

SK&F

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Post-Doctoral Scientist

The Agricultural Research Division of American Cyanamid Company wishes to recruit a Post-Doctoral Scientist in the Biochemistry & Physiology Group of the Department of Animal Industry Discovery and Biotechnology.

This individual will join a team concerned with identifying and establishing new and novel immunological methods of modifying hormone activity towards enhancing animal production.

The successful candidate will recently have completed a Ph.D. in endocrinology/immunology and have an interest in factors modulating growth and lactation. He/she will work closely with other scientists within the Division. This is an opportunity for the right person to gain experience in a new and rapidly expanding field.

American Cyanamid offers a competitive compensation and benefits package. For prompt and confidential consideration, forward your resume to the Employment Office.



American Cyanamid Company
Agricultural Research Division
P.O. Box 400
Princeton, NJ 08540
An Equal Opportunity Employer M/F/H

Assistant Staff Scientists

Immunex Corporation, a leader in the field of biotechnology, has immediate openings for assistant staff scientists (post-doctoral fellows) in its Cellular Immunology and Biochemistry groups. Successful candidates will be involved in multiple research projects aimed at characterization of cytokines and their actions in models of hematopoiesis and auto-immunity. Applicants for these positions should possess a Ph.D. in Immunology/Microbiology/Biochemistry or a related field. Experience with *in vivo* models of auto-immune dysfunction or hematopoiesis is advantageous. For consideration, please submit curriculum vitae and names of three references to:

Human Resources Officer
Immunex Corporation
51 University Street
Seattle, WA 98101

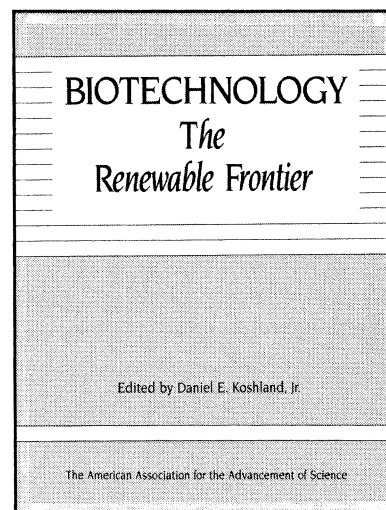
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Edited by
Daniel E. Koshland, Jr.
Editor, *Science*



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POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

A 2-year postdoctoral research position (salary \$20,000 per year) is available to study renal physiology/pathophysiology of aging. Preference will be given to applicants with experience in rat surgical techniques and micropuncture. Position available 1 August 1987. *Women and minorities are encouraged to apply.* Application information and more detailed descriptions of this research position are available on request from:

Dr. Christine Baylis
Associate Professor
Department of Physiology
West Virginia University Medical Center
Morgantown, WV 26506

Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSISTANT—MONOCLONAL/ TISSUE CULTURE RESEARCH ASSISTANT. Two years of experience required with the production of hybridoma cell lines. Desire to implement new techniques and solve problems. Applicant will collaborate with scientists in the production, screening, and characterization of monoclonal antibodies as well as perform routine tissue culture tasks. M.S. degree preferred. Excellent benefits and beautiful working environment. Please send résumé in confidence to: **Rockefeller University, Personnel Office, East 66 Street and York Avenue, New York, NY 10021.** *An Equal Opportunity Employer.*

RESEARCH ASSOCIATE/ ASSOCIATE DIRECTOR

The University of Missouri invites applications for a 12-month, state-supported position as Associate Director of an Oligonucleotide Synthesis Facility. Duties include management of Facility operations, synthesis and purification of custom oligodeoxynucleotides and computer analysis of nucleic acid and protein sequence data. Familiarity with DNA and protein sequence software is required. Candidates should have a Ph.D. degree or equivalent experience in biochemistry, nucleic acid chemistry, and molecular biology. Send applications to: **Dr. Mark A. McIntosh, Department of Microbiology, University of Missouri, Columbia, MO 65212.** *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH GENETICIST (ANIMAL). Immunogeneticist responsible for developing research programs and planning, implementing, and executing specific experiments in the area of genetic resistance to disease. Specific efforts include establishment of research programs on: (i) Definition by serological methods of class I genes of the bovine and ovine major histocompatibility systems and examination of the role of sex, herd, breed, farm, and country of origin on the frequency of class I alleles. (ii) Definition by serological, cellular and recombinant DNA methods of class II genes of the bovine major histocompatibility system and examination of the role of sex, herd, breed, farm, and country of origin on the frequency of class II alleles. (iii) Definition of the genetic structure and organization of the bovine major histocompatibility system by serological, cellular, and recombinant DNA methods. (iv) Analysis by appropriate statistical methods of the associations between major histocompatibility system type and disease resistance, growth rate, and reproductive performance. (v) Analysis of the relationship between major histocompatibility system type and humoral and cellular immune responsiveness. Minimum qualifications: (i) Ph.D. in immunology/genetics; (ii) 3 years of appropriate experience; (iii) knowledge of serological techniques and major histocompatibility system in cattle; (iv) knowledge of genetic resistance to diseases in cattle. \$38,727 per annum. Application by résumé.

Send résumé to: **Keith Myers, P.O. Box 94600, Lincoln, NE 68509.** Refer to Job Order Number 253128.

SCIENTIST

A major pharmaceutical company has an opening for a neurobiologist with protein biochemistry, molecular biology, and enzymology experience. Expertise in physiology and pharmacology of metalloproteinase is essential. We are seeking a candidate with international visibility and excellent academic qualifications. Please respond to: **Box 102, SCIENCE.**



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IMMUNOLOGISTS

Biotechnology Research Institute
(Montreal, Québec)

The Biotechnology Research Institute, a division of the National Research Council of Canada, is located in Montreal. It will employ approximately 240 people and will host up to 200 researchers from industries, universities and other research organizations. This new research institute pursues generic research, both basic and applied, aimed at finding solutions to general problems related to industrial development of biotechnology.

The Molecular Immunology Section of the Institute is looking for immunologists with a background in the cellular and/or molecular aspects of T lymphocyte activation.

The duties include the establishment of a research program which will contribute significantly to the Institute's Immunology Section as well as the development of techniques useful in the above-mentioned areas.

Candidates should have a Ph.D. in a relevant discipline with at least two years of post-doctoral research experience. Some of the positions are at the level of group leader and require additional in-depth knowledge of the subject area and several years of experience in applied research and technology transfer.

Salary: Commensurate with qualifications and experience.

Apply in writing, giving complete details of education and experience to:

The Manager, Employment Office, National Research Council of Canada, Ottawa, Ontario, K1A 0R6. In reply, please quote competition RB-86-46.

Canada

REPRODUCTIVE TOXICOLOGY

Continued expansion at Warner-Lambert/Parke-Davis has created the need for a senior scientist in our Reproductive Toxicology section.

The duties of this position will be to study the deleterious effects of new drugs on the reproductive processes. The successful candidate will assist in the design, execution and analysis of studies which focus on the mother, embryo/fetus, newborn and weaning. The position will also involve supervisory responsibilities and drug discovery team participation.

Requirements for this position include a Ph.D. in Reproduction Biology or closely allied field, one to three years post-doc experience in reproductive toxicology, knowledge of GLPs, experience in maintenance of animal colonies, embryo culture techniques, and in animal care and handling.

This position is located at our research facilities in Ann Arbor, Michigan, adjacent to the University of Michigan campus. The successful candidate will participate in dynamic drug discovery and development teams, and enjoy an excellent salary, benefits, professional development and living and working environment.

Qualified candidates send response, salary requirements and reference list in confidence to: **Ms. M. Wolin, Warner-Lambert/Parke-Davis, 2800 Plymouth Road, Ann Arbor, MI 48105.**

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Research Associate

Department of Surgery

The Division of Trauma in the Department of Surgery at the State University of New York at Stony Brook is recruiting for an individual to develop and organize its research program in trauma, shock, sepsis, burns and intensive care. A Ph.D. is required in physiology, cell biology, immunology or biochemistry, with experience in trauma, burns, shock, sepsis or intensive care. 3 years laboratory experience is required. Please send CV to: David J. Kreis, Jr., MD, Chief, Division of Trauma, Health Sciences Center (HSC) T-19, 060, SUNY Stony Brook, Stony Brook, NY 11794. SUNY Stony Brook is an affirmative action/equal opportunity educator and employer.

Long Island's Premiere University

Stony Brook

Scientist/Virologist

Genetic Systems Corporation/Oncogen, a division of Bristol-Myers and a leader in biotechnology, performs research dedicated to pursuing novel approaches to the development of diagnostic and therapeutic products in the areas of immunology, infectious diseases and cancer.

We are currently recruiting for a PhD to study human immunodeficiency virus and related retroviruses in one or more of the following areas: virology, pathogenesis and viral immunology. The incumbent will develop research programs to complement ongoing efforts in the design and testing of candidate vaccines against AIDS.

Qualified candidates should possess a PhD in microbiology or related fields with extensive experience in virology. Skills in virus isolation, cultivation, quantitation and characterizations are necessary. Experience in retrovirology desirable.

Genetic Systems Corporation offers a creative work environment, competitive salaries and an excellent benefit package. For consideration, please send your curriculum vitae to: **Personnel, Genetic Systems Corporation, 3005 First Ave., Seattle, WA 98121. EOE/AA.**



Genetic Systems
CORPORATION

BIOPHARMACEUTICAL RESEARCH OPPORTUNITIES

CENTOCOR, a leading independent biopharmaceutical company located in suburban Philadelphia, has excellent opportunities available for qualified individuals to work in growing Research and Development Group.

SENIOR RESEARCH SCIENTISTS IMMUNOTHERAPY/ INFECTIOUS DISEASES

Responsibilities include development of *In Vitro* and *In Vivo* methods to evaluate monoclonal antibodies with anti-bacterial or anti-viral properties. Ideal candidate should have a Ph.D. in Immunology/Microbiology with a minimum of 4 years of research experience in infectious disease model systems. Strong analytical skills in Microbiology/Virology and Protein Chemistry required.

PROTEIN CHEMISTRY

Responsibilities include development of new methods for purification characterization of heterobifunctional and human antibodies and supervision in production of clinical grade antibody. Ideal candidate must have a Ph.D. in Biochemistry, Protein Chemistry or related sciences with 2 to 5 years' postdoctoral experience.

HYBRIDOMA PROGRAM

Supervise and support the production of new mammalian hybridomas, and develop methods to maintain hybridoma stability and amplify antibody production. Candidate should possess a Ph.D. in Cell Biology, Immunology or equivalent with 2 to 5 years' postdoctoral experience in mammalian hybridoma cell culture. Direct experience in generating human hybridomas preferred.

MOLECULAR BIOLOGY

Join research team engaged in genetic engineering approaches to the study of immunoglobulin gene expression. Ph.D. required with at least 2 years' experience in recombinant DNA technology, preferably in mammalian systems.

PROTEIN PROCESSING

Responsibilities include using standard and innovative methods for purification and characterization of proteins to be used as injectable pharmaceuticals. Should possess a Ph.D. in Biochemistry or related field, with 2 to 5 years of related postdoctoral or industrial experience. Experience with standard biochemical techniques and instrumentation is essential. Familiarity with monoclonal antibodies and immunoassay development is desirable.

RESEARCH ASSOCIATE CELL BIOLOGY

Responsibilities include generating, maintaining and characterizing mammalian hybridomas and transformed cell lines. Support small-scale monoclonal antibody production. Candidate must have a B.S. or M.S. degree in Cell Biology, Biochemistry or equivalent with at least 5 years' research experience in area of mammalian cell culture.

RESEARCH TECHNICIAN MOLECULAR BIOLOGY

Successful candidate will work with a group responsible for research on antibody modification using recombinant DNA approaches. A B.S. or M.S. degree with a minimum of 1 year's laboratory experience in techniques of molecular biology required. Experience with mammalian tissue culture and protein purification techniques helpful.

Apply with resume to: **Director, Immunobiology Research & Development, 244 Great Valley Parkway, Malvern, PA 19355. NO PHONE CALLS PLEASE.**

EOE



CENTOCOR

POSITIONS OPEN

RESEARCH ASSOCIATE/ POSTDOCTORAL FELLOW:

A position is available on or after 1 September 1987 to study the human B-cell repertoire of erythrocyte auto-antibodies in patients with immune hemolytic syndromes. The project will involve EBV transformation/somatic hybridization of human B-cells, immunochemistry of monoclonal antibodies; hybridization with DNA probes to specific mRNA and DNA immunoglobulin gene fragments. Salary commensurate with qualifications and experience. Send curriculum vitae, statement of research interests, and the names of three references to: **Dr. Leslie E. Silberstein, Department of Pathology and Laboratory Medicine, Hospital of the University of Pennsylvania, Gibson 495, Philadelphia, PA 19104.**

RESEARCH POSITION: Cellular Immunology and Molecular Biology. The Pulmonary Unit (Medical Services) of the Massachusetts General Hospital has a staff opening for a Ph.D. with a strong background and experience in cellular immunology and molecular biology to work in newly expanded laboratory facilities. Experience in the use of in vitro techniques, including cell culture work, and interest in environmental/occupational immunology are desirable. Please send curriculum vitae and a brief description of research interests to: **L. C. Ginns, M.D., Pulmonary Unit, Bulfinch 1, Massachusetts General Hospital, Boston, MA 02114. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH PROJECT AND DEVELOPMENT ASSISTANT MOLECULAR BIOLOGIST PATHOLOGY RESEARCH LABORATORIES

Designs experimental protocols and develops research methodologies with utilize techniques of molecular biology for quantitative and qualitative evaluation of biological phenomena which involve experimental animals; reviews literature pertinent to research; writes and edits scientific papers in consultation with Director of Research Laboratories. Qualified applicants will have a Master's in Biological Sciences and 2 or more years of research experience. Ph.D. preferred. Send résumé and names of references to:

**Tito Cavallo, M.D., Pathologist in Chief
Rhode Island Hospital
593 Eddy Street
Providence, RI 02902**

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SENIOR RESEARCH ASSOCIATE IN CANCER BIOLOGY

The Department of Pathology at Cornell University College of Veterinary Medicine invites applications for the position of senior research associate in cancer biology to conduct research on the homing of metastatic tumor cells to preferred host organ sites. The position requires a strong background in protein isolation, purification, and characterization. Experience in working with nucleic acids and knowledge of recombinant DNA techniques is desirable. Applicants should have a Ph.D. degree in biochemistry or molecular biology, related postdoctoral experience, and the proven ability to conduct independent research. All interested candidates should send curriculum vitae and names of three references to: **Dr. Bendicht U. Pauli, Department of Pathology, Cornell University, New York State College of Veterinary Medicine, Ithaca, NY 14853-6401.**

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

The Division of Urology, UCLA School of Medicine, is recruiting a **UROLOGIST** to function as a full-time faculty member primarily in the areas of urodynamics and female urology. Applicants must be Board-certified or Board-eligible, have extensive experience and made sufficient contributions to clinical research in urodynamics, bladder reconstruction and female urology. The applicant must be capable of organizing and supervising a section of neurourology and female urology in a large clinical department. Applicants should submit curriculum vitae, bibliography, and names of references. **UCLA is an Equal Opportunity/Affirmative Action Employer.** Inquiries should be addressed to: **Chief, Division of Urology, UCLA School of Medicine, Los Angeles, CA 90024-1738.**

POSITIONS OPEN

TECHNICIAN HOWARD HUGHES MEDICAL INSTITUTE THE UNIVERSITY OF CHICAGO

Technician required for laboratory using molecular biological techniques to study insulin receptor structure and function. Work will involve tissue culture and techniques in molecular biology, including cDNA cloning, site directed mutagenesis, and DNA sequencing. Applicants should have B.S. in biological sciences. Previous experience of tissue culture and recombinant DNA technology would be an advantage.

Send curriculum vitae to: **Dr. Jonathan Whittaker, Howard Hughes Medical Institute, The University of Chicago, 920 East 58th Street, Chicago, IL 60637.**

TELESCOPE OPERATORS

Vacancies exist for telescope operators on the James Clerk Maxwell Telescope, a new 15-m-diameter instrument designed to carry out astronomical research in the millimeter and submillimeter wavebands and built on the summit of Mauna Kea, Hawaii. They are open to applicants of either sex who have knowledge of observational astronomy, computer software, basic electronics, or any other skill useful for the smooth, routine operation of a sophisticated modern telescope. An appropriate bachelor's degree is the minimum qualification, and the salary will be commensurate with the qualifications and experience. Applications and requests for information should be sent to: **the Administration Officer, United Kingdom Telescopes, 665 Komohana Street, Hilo, HI 96720. Closing date: 7 August 1987.**

WILDLIFE ECOLOGY AND RESOURCE MANAGEMENT THE SCHOOL FOR FIELD STUDIES (SFS)

Search reopened: Field Director, Kenya. Direct responsibility for permanent programs in ecology, ethology, and natural resource conservation, overseeing 4 faculty and 80 students per year. Demonstrated administrative/management ability, Ph.D., college teaching, and research in (plant or animal) ecology, resource management. Nine and one half months spent at site, one and one half in Beverly, MA. Salary \$24,000, plus travel/living expenses. Résumés to: **SFS, 376 Hale Street, Beverly, MA 01915. Equal Opportunity Employer.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP PROGRAM IN NEUROSCIENCE BAYLOR COLLEGE OF MEDICINE

An NIH-funded postdoctoral fellowship is available in the Program in Neuroscience at Baylor College of Medicine. The program is an interdepartmental one, drawing faculty from ten basic science and clinical departments. Projects available to applicants are in the areas of molecular neurobiology, biophysics and electrophysiology, cellular neurobiology, and systems analysis. Interested applicants should send a statement of research interests, curriculum vitae, and the names and addresses of three references to: **Postdoctoral Director, Neurosensory Center, Suite NB-302, Houston, TX 77030.**

POSTDOCTORAL FELLOWSHIP. Position for recent Ph.D. to study the role of ionic channels in stimulus-secretion coupling in endocrine cells. Project involves patch-clamp study of currents in single cells identified by immunological methods. Knowledge of electrophysiological methods, and the use of computers for data acquisition and analysis is preferred. NIH-level stipends depend on experience. Send curriculum vitae and names of three references by 1 September 1987 to: **Dr. Rick Matteson, University of Maryland, Department of Biophysics, 660 West Redwood Street, Baltimore, MD 21201. Equal Employment Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOWSHIPS: Two postdoctoral fellowships are available to develop novel methodologies for polypeptide syntheses and one for investigation of electroactive polymers. Requirements: Ph.D. in organic or polymer chemistry. Support available up to 3 years. Send résumé, three letters of recommendation, graduate transcript, and research experience to: **Dr. Semih Erhan, Director, Center for Protein Research, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, PA 19141.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS IN NEUROIMMUNOLOGY. The 2-year fellowships, available immediately, involve participation in an interdisciplinary research group. Applicants with a Ph.D. or M.D. and research interests in immunology or molecular biology should send curriculum vitae, graduate or medical school transcript, statement of research and career goals, and three letters of recommendation to: **M. Sue O'Dorisio, M.D., Ph.D., Departments of Pediatrics and Immunology, Ohio State University, 700 Children's Drive, Columbus, OH 43205.**

RESEARCH TRAINING

NEUROBIOLOGY OF AGING TRAINING for M.D.'s and Ph.D.'s. Several fellowships, supported by the National Institute on Aging, will be available in 1988 for post-residency M.D.'s and Ph.D.'s who are interested in research training in the neurobiology of aging and/or Alzheimer's disease. We encourage applicants with diverse backgrounds who wish to apply their past training to problems of the aging CNS. We are particularly interested in persons with prior training in molecular biology or neuropathology. Other pertinent backgrounds could be in immunology, psychiatry, medicine, gerontology, biochemistry, or neural sciences. The training program offers an intense research apprenticeship in fundamental research, brief circulation through a variety of laboratories, seminars, and clinical activities at Monroe Community Hospital and at Strong Memorial Hospital. Twenty potential preceptors are in the Departments of Neurology, Neurobiology and Anatomy, Brain Research, Medicine, and Psychology. The University of Rochester is notable for its absence of barriers among laboratories, facilities and departments so work in facilities outside the formal preceptor list is also possible. There are over 70 laboratories devoted to the study of the nervous system. Molecular biology and immunology are other areas of strength at the University of Rochester. U.S. citizens or permanent US residents only. Apply to: **Dr. Paul D. Coleman, Department of Neurobiology and Anatomy, University of Rochester, Medical Center, Rochester, NY 14642.**

RESEARCH TRAINING IN SALIVARY SECRETION

Positions available immediately, at the University of Washington for research training in the cell biology and pathophysiology of salivary secretion. Possible topic areas include elemental analysis using electron probe, interactions between salivary macromolecules, intracellular messengers, transport of secretory macromolecules, tissue culture, bacterial colonization, etc. Applicants should have Ph.D. or professional degree (M.D., D.D.S., D.V.M. or equivalent) and must be U.S. citizen or have permanent visa. Graduate programs leading to Ph.D. or M.S. are available. Stipends: \$15,996 to \$30,000, depending upon years of experience. Send curriculum vitae, three references, and statement of research interests to: **Dr. Kenneth Izutsu, Department of Oral Biology, SB-22, University of Washington, Seattle, WA 98195, at earliest possible date. An Affirmative Action/Equal Opportunity Employer.**

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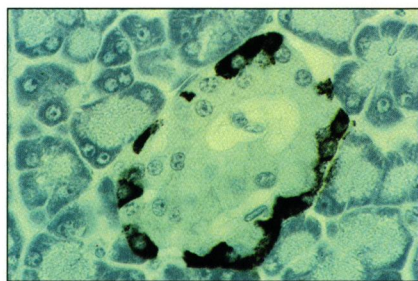
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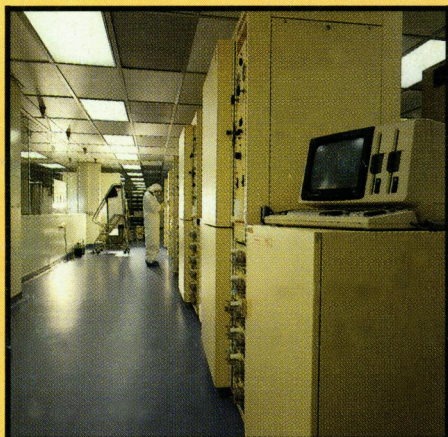
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The Endotronics systems provide you with these advantages through a complete instrument line. The correct choice of a mass cell culture technology during development stages of a biotechnology-derived product is critical to successful commercialization in the future. The culture technology chosen must be capable of economical production so it can compete effectively in the marketplace. Economics, feasibility, and ability to deliver product consistently are the key factors in choosing a cell culture technology.

The ACUSYST technology is the most economical, advanced cell culture production technology available. It incorporates a patent-pending hollow-fiber technology that allows use of hollow fibers from research scale to production scale. The advantages of ACUSYST hollow fiber technology include:

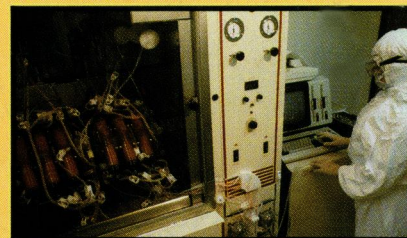
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