

with the initial outgrowth of retinal ganglion cell axons and with the neurogenesis and migration of cells that make up the visual system and other events that occur largely during prenatal development but are now amenable to study because of significant technological advances. These omissions weaken the book and make it less suitable for the reader seeking a comprehensive introduction to this field. However, those working in the field will find the book useful not only as a source of information, but also as a reminder that much more must be learned before it is possible to understand fully how connections in the visual system can be altered by the effects of experience.

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A Science of Cognition

Method and Tactics in Cognitive Science. WALTER KINTSCH, JAMES R. MILLER, and PETER G. POLSON, Eds. Erlbaum, Hillsdale, N.J., 1984. xii, 324 pp. \$29.95. From a conference, Boulder, Colo., 1981.

Methods are justly notorious for the barriers they can impose between adjacent sciences. It is therefore not surprising that the recent movement to integrate the several sciences of cognition has encountered its most stubborn obstacle in the diverse methodologies employed in psychology, linguistics, computer science, neuroscience, and the rest of the cognitive sciences. This book is a valiant effort to confront the problem.

Authored by about a dozen cognitive scientists of various stripe who met together in a conference, the book keeps its bearings by working from concrete examples of research in artificial intelligence (AI), linguistics, and cognitive psychology. In each chapter, the authors attempt to illustrate the methods employed in their particular corner of cognitive science and to assess the relations between their own methods and those of their near neighbors. Kintsch, Miller, and Polson provide introductory and concluding chapters that summarize the entire exercise.

Collectively, the authors are of three minds about the current relations among the methodologies and their future prospects. One camp argues that certain methods are inherently more powerful and will come to dominate the field. Philosopher John Haugeland, for in-

stance, maintains that AI is "first among equals" because computers make it "feasible to build, maintain, and intellectually manage systems of unprecedented complexity." Therefore, Haugeland argues, AI can attempt to synthesize the full scope of human intelligence, whereas each of the other cognitive disciplines is stuck with "some little tag-end of the phenomena that it can get a relatively firm grip on" (p. 92). A second camp, principally represented by computer scientist Eugene Charniak but also including the editors of the volume, argues that methodological diversity is cognitive science's greatest current asset. Since all efforts to understand the workings of intelligence remain fairly primitive, cognitive scientists should not attempt to prejudge which will evolve most successfully. Meanwhile, tolerance and an effort to understand each other's methods should be the order of the day. The third camp takes a somewhat stronger line: namely, that the disparate battery of cognitive methods can be employed in complementary fashion to achieve a science of cognition that is more successful than any of the current cognitive sciences alone can be.

Of the three views, the last is undoubtedly the most interesting, since only in it is there any promise that cognitive science might become more than the sum of its parts. Anyone interested in assessing this promise should look particularly at the chapter by Bresnan and Kaplan, which sets forth the methodological program underlying lexical functional grammar, and also at the chapter by Van Lehn, Brown, and Greeno, which reviews the so-called "buggy" studies of children's problems learning multiplace subtraction problems. Bresnan and Kaplan argue that linguistic criteria alone are not sufficient to determine a psychologically valid representation of linguistic competence. In their view, a grammar must be usable, learnable, and psychologically testable in order to stake a psychological claim, and they try to show how lexical functional grammar might meet these tests. Van Lehn, Brown, and Greeno similarly argue that isolated cognitive methods are insufficient, but their target is AI, not linguistics. In their view, AI's efforts to simulate intelligent behavior are in danger of simply substituting "one black box, a complex computer program, for another, namely the human mind" (p. 237). Computer science may have given psychology the means of expressing detailed cognitive models, but this increased representational capacity has not been matched by efforts to analyze the princi-

ples underlying intelligent behavior, either natural or artificial. As a result, "the new, richly detailed models of cognitive science often fail to meet the traditional criteria of scientific theories" (p. 237). Van Lehn and colleagues recommend that the theoretical techniques of linguistics and the experimental techniques of psychology be added to AI in order to develop testable claims about the underlying nature of intelligence. Certainly, one comes away from this book with an enhanced sense of the methodological options available in the cognitive sciences. But one also emerges with a sense that it matters, perhaps more than previously supposed, whether we think of the cognitive sciences as one or many.

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Books Received

Antimicrobial Therapy. Angela M. Ristuccia and Burke A. Cunha, Eds. Raven, New York, 1984. xviii, 618 pp., illus. \$98.50. Handbook of Therapeutic Drug Monitoring Series. illus. \$59.

The Art of Reckoning. Analysis of Performance Criteria. Samuel Eilon. Academic Press, Orlando, Fla., 1984. xvi, 507 pp., illus. \$39.50. Decision Science Series.

Assured Survival. Putting the Star Wars Defense in Perspective. Ben Bova. Houghton Mifflin, Boston, 1984. viii, 343 pp. \$15.95.

Developments in Expert Systems. M. J. Coombs, Ed. Academic Press, Orlando, Fla., 1984. xvi, 253 pp., illus. \$15. Computers and People Series. Reprinted from *International Journal of Man-Machine Studies*.

Fieser and Fieser's Reagents for Organic Synthesis. Vol. 11. Mary Fieser. Wiley-Interscience, New York, 1984. x, 669 pp., illus. \$45.

The XVth Epilepsy International Symposium. (Washington, D.C., Sept. 1983.) Roger J. Porter et al., Eds. Raven, New York, 1984. xxii, 687 pp., illus. \$120. Advances in Epileptology Series.

A First Course in Mathematical Modeling. Frank R. Giordano and Maurice D. Weir. Brooks/Cole, Monterey, Calif., 1985. xviii, 382 pp., illus. \$30.

Fluctuations and Sensitivity in Nonequilibrium Systems. W. Horsthemke and D. K. Kondepudi, Eds. Springer-Verlag, New York, 1984. x, 273 pp., illus. \$29. Springer Proceedings in Physics, vol. 1. From a conference, Austin, Tex., March 1984.

Food. The Chemistry of Its Components. T. P. Coulter. Royal Society of Chemistry, London, 1984 (U.S. distributor, American Chemical Society, Washington, D.C.). vi, 197 pp., illus. Paper, \$11. Royal Society of Chemistry Paperbacks.

Geohydrothermodynamics of a Water Planet. A New Geological Model. I: Quaternary Glaciation Theories. Carl Andrew Zappfe. CAZlab, Baltimore, 1984. vi, 170 pp., illus. Paper, \$20.

The Growth and Development of Birds. Raymond J. O'Connor. Wiley-Interscience, New York, 1984. x, 315 pp., illus. \$39.95.

Habituation, Sensitization, and Behavior. Harman V. S. Peeke and Lewis Petrinovich, Eds. Academic Press, Orlando, Fla., 1984. xiv, 471 pp., illus. \$59. Behavioral Biology.

Handbook of Natural Toxins. Vol. 2, Insect Poisons, Allergens, and Other Invertebrate Venoms. Anthony T. Tu, Ed. Dekker, New York, 1984. xviii, 732 pp., illus. \$135.

Health Care in Developing Countries. Wilbert M. Gesler. Association of American Geographers, Washington, D.C., 1984. viii, 88 pp., illus. Paper, \$5. Resource Publications in Geography.

Hematoporphyrin Derivative Photoradiation Therapy of Cancer. Michael W. Berns, Ed. Liss, New York, 1984. viii, 133 pp., illus. \$29.50. Also published as *Lasers in Surgery and Medicine*, vol. 4, No. 1.

(Continued on page 100)

New!

MOLECULAR BASIS OF INSULIN ACTION

edited by Michael P. Czech

This book examines a number of modes of insulin action at the molecular level. Information is given on signal initiation by the insulin receptor; intracellular signaling mechanisms of insulin action; mechanisms of target enzyme modulations by insulin action; control of gene expression by insulin; and regulation of membrane components by insulin.

0-306-41843-6/464 pp. + index
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CHEMICAL MOSSBAUER SPECTROSCOPY

edited by R. H. Herber

Contributors to this volume survey the application of nuclear gamma-ray resonance techniques to a wide variety of chemical problems.

0-306-41885-1/proceedings/392 pp.
ill./1985/\$59.50

ELECTRODE PROCESSES AND ELECTROCHEMICAL ENGINEERING

by Fumio Hine

Drawing on his extensive background as a consultant and researcher for chlorine companies in the United States, Fumio Hine describes electrode processes in electrochemical engineering and gives detailed examples of practical applications.

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TISSUE CULTURE IN FORESTRY AND AGRICULTURE

edited by Randolph R. Henke, Karen W. Hughes, Milton J. Constantin, and Alexander Hollaender

Presents state-of-the-art technology and research involving the propagation of higher plants—particularly forest trees—through tissue culture. Volume 32 in the series Basic Life Sciences.

0-306-41919-X/proceedings
390 pp. + index/ill./1985/\$55.00



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BOOKS RECEIVED

(Continued from page 68)

Human Tumour Drug Sensitivity Testing *In Vitro*. Techniques and Clinical Applications. Philip P. Dendy and Bridget T. Hill, Eds. Academic Press, Orlando, Fla., 1983. x, 333 pp., illus. \$60.

Hypnotherapy of Pain in Children with Cancer. Josephine R. Hilgard and Samuel Lebaron. Kaufmann, Los Altos, Calif., 1984. x, 250 pp. \$18.95.

Immune Modulation Agents and Their Mechanisms. Richard L. Fenichel and Michael A. Chirigos, Eds. Dekker, New York, 1984. xvi, 678 pp., illus. \$99.50. Immunology Series, 25.

Immunogenetics. Its Application to Clinical Medicine. Takehiko Sasazuki and Tomio Tada, Eds. Academic Press, Orlando, Fla., 1984. xviii, 308 pp., illus. \$30. From a symposium, Tokyo, Aug. 1983.

Immunological Aspects of Reproduction in Mammals. D. B. Crighton, Ed. Butterworths, Boston, 1984. xii, 529 pp., illus. \$135. From a school, Nottingham, England.

The Jurassic of the Gulf Rim. William P. S. Venness *et al.*, Eds. Gulf Coast Section, Society of Economic Paleontologists and Mineralogists Foundation, 1984 (distributor, Earth Enterprises, Austin, Texas). viii, 408 pp., illus. Paper. From a conference, Baton Rouge, La., Nov. 1982.

Klinefelter's Syndrome. H.-J. Bandmann, R. Breit, and E. Perwein, Eds. Springer-Verlag, New York, 1984. xiv, 229 pp., illus. Paper, \$35.

Laboratory Manual of General Ecology. George W. Cox. 5th ed. Brown, Dubuque, Iowa, 1984. xii, 248 pp. Spiral bound.

Lectures on the Electrical Properties of Materials. L. Solymar and D. Walsh. 3rd ed. Oxford University Press, New York, 1984. xiv, 413 pp., illus. \$39.95; paper, \$19.95.

Magnetic Excitations and Fluctuations. S. W. Lovesey *et al.*, Eds. Springer-Verlag, New York, 1984. x, 227 pp., illus. \$28. Springer Series in Solid-State Sciences, vol. 54. From a workshop, San Miniato, Italy, May 1984.

Magneto-Solid Mechanics. Francis C. Moon. Wiley-Interscience, New York, 1984. xii, 436 pp., illus. \$59.95.

Nuclear Proliferation Today. Leonard S. Spector. Ballinger (Harper and Row), Cambridge, Mass., 1984. xvi, 478 pp. \$25. A Carnegie Endowment Book.

Objects. Towards a Theory of Grammatical Relations. Frans Plank, Ed. Academic Press, Orlando, Fla., 1984. x, 302 pp. \$42.

L'Ordre dans le Chaos. Vers une Approche Déterministe de la Turbulence. Pierre Bergé, Yves Pomeau, and Christian Vidal. Hermann, Paris, 1984. xvi, 353 pp., illus. Paper, 230 F. Collection Enseignement des Sciences, 33.

Organ Procurement. G. Kootstra, B. Husberg, and J. A. van der Vliet, Eds. Grune and Stratton, Orlando, Fla., 1984. xvi, 317 pp., illus. \$74.50. Reprinted from *Transplantation Proceedings*, vol. 16, No. 1. From a congress, Maastricht, Netherlands, April 1983.

Our Uncertain Heritage. Genetics and Human Diversity. Daniel L. Hartl. 2nd ed. Harper and Row, New York, 1984. xii, 468 pp., illus. \$32.50.

Paleopathology at the Origins of Agriculture. Mark Nathan Cohen and George J. Armelagos, Eds. Academic Press, Orlando, Fla., 1984. xx, 615 pp., illus. \$59. From a conference, Plattsburgh, N.Y., April 1982.

Quality Technology Handbook. R. S. Sharpe *et al.*, Eds. 4th ed. Butterworths, Boston, 1984. vi, 485 pp., illus. \$85.

Radioactivity in the Environment. Sources, Distribution, and Surveillance. Ronald L. Kathren. Harwood, New York, 1984. xvi, 397 pp., illus. \$66.

Recidivism. Michael D. Maltz. Academic Press, Orlando, Fla., 1984. xvi, 243 pp., illus. \$42. Quantitative Studies in Social Relations.

Reducing the Carcinogenic Risks in Industry. Paul F. Deisler, Jr., Ed. Dekker, New York, 1984. xii, 258 pp. \$55. Occupational Safety and Health, 9.

The Reluctant Naturalist. An Unnatural Field Guide to the Natural World. Charles A. Monagan. Atheneum, New York, 1984. xii, 116 pp., illus. \$10.95.

The Science Almanac. 1985-1986 Edition. Bryan Bunch, Ed. Anchor/Doubleday, Garden City, N.Y., 1984. xiv, 562 pp. \$19.95; paper, \$12.95.

Science Blundering. An Outsider's View. Herbert L. Nichols, Jr. North Castle Books, Greenwich, Conn., 1984. x, 118 pp., illus. \$15.

Two-Photon Physics at e^+e^- Storage Rings. Hermann Kolanoski. Springer-Verlag, New York, 1984. x, 187 pp., illus. \$27. Springer Tracts in Modern Physics, 105.

Varieties of Attention. Raja Parasuraman and D. R. Davies, Eds. Academic Press, Orlando, Fla., 1984. xviii, 556 pp., illus. \$58.50. Academic Press Series in Cognition and Perception.

Personnel Placement

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Cytogeneticist/Cell Biologist. Ph.D. 1976. Director of medical cytogenetics laboratory. Research interests: chromosome organization, spermatogenesis, embryo culture. Desires position in medical cytogenetics and/or research laboratory in genetics/reproductive biology. Available May 1985. Box 75, SCIENCE. X

Environmental Scientist, M.S., and M.A. ecology, 1985. Research experience in wastewater treatment and regional ecology. Publications. Will relocate. Available immediately. Tim McDaniel, 1150 Fairfield, Troy, Ohio 45373. X

Human Factors, Ph.D. 1969, 15 years of teaching/consulting, recently human factors of built environment in China. Seeks senior position, corporate or university setting. Box 13741, Portland, Oregon 97213. X

Immunologist. Ph.D. 1970. Academic and industrial research experience in cellular and molecular immunology, immunopotentialization, lymphokines, lymphocyte-target cell killing, immunoassay development, hybridoma and monoclonal antibodies. Excellent publications and references. Seeking academic or industrial position. Box 73, SCIENCE. X

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Molecular Biologist/Organic Chemist. Ph.D. Postdoctoral experience in recombinant DNA technology, gene cloning/sequencing, vector construction. Seven years of experience in organic synthesis, carbohydrate chemistry, spectroscopy (NMR, MS, IR, UV), chromatography. Seeks challenging R&D industrial position to utilize multidisciplinary experience. Location open. Box 84, SCIENCE 4/5, 19

Physiologist. Ph.D. Stanford, 1977. Four years of postdoctoral training. Extensive experience in basic human research including cardiovascular regulation, muscle metabolism, exercise pathophysiology. Aggressive publication and grant funding record. Excellent references. Seeks medical school academic appointment. Box 76, SCIENCE. 4/5, 12, 19

Research Technician. B.A., molecular biology, 1984. Undergraduate experience in microbiology, immunology, and genetic engineering. Also, experience in animal surgery. Box 78, SCIENCE. X

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Candidates for this position must have an earned doctorate degree and a minimum of 3 years of teaching experience in anatomy, including cadaver dissection, at a 4-year college/university level. Rank at the assistant/associate/full professor level and salary dependent upon qualifications and experience.

Send complete curriculum vitae and names and addresses of three references by 1 May 1985 to:

Dr. Charles R. Brown, Chairperson
Allied Health Education Search Committee
College of Allied Health
University of Oklahoma Health Sciences Center
P.O. Box 26901
Oklahoma City, Oklahoma 73190

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DEPARTMENT OF PATHOLOGY, UNIVERSITY OF MASSACHUSETTS MEDICAL CENTER, OPENING IN ANATOMIC PATHOLOGY. The Department of Pathology at the University of Massachusetts Medical Center is seeking a junior, Board-certified pathologist for the Anatomic Pathology Division. Requirements: 2 to 3 years of postgraduate training in one of the following areas: GI pathology, kidney pathology, immunohistochemistry, diagnostic electron microscopy; interest in teaching both medical students and residents; and a dedication to the pursuit of excellence in an academic environment. Level of appointment: assistant professor. *The University of Massachusetts is an Equal Opportunity Employer.* Please write (and submit three references) to: G. Majno, M.D., Chairman, Department of Pathology, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, Mass. 01605. Application deadline: 30 April 1985.

ASSISTANT DIRECTOR. Clinical Chemistry Division—Position available now. Ph.D. or equivalent required; Board-certification preferred. Service laboratory teaching and research experience desired. Civil Service position; *Equal Opportunity Employer.* Submit résumé to: Dr. L. Edwards, Chairman, Search Committee, Erie County Laboratory, Erie County Medical Center, 462 Grider Street, Buffalo, N.Y. 14215-3098.

CHIEF TOXICOLOGIST position available now. Ph.D. or equivalent preferred; experienced in clinical and forensic toxicology. Work involves service, teaching, and research. Civil Service position with *Equal Opportunity Employer.* Submit résumé to: Dr. L. Edwards, Chairman, Search Committee, Erie County Laboratory, Erie County Medical Center, 462 Grider Street, Buffalo, N.Y. 14215-3098.

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Dr. Richard D. Berlin, Head
Department of Physiology
University of Connecticut Health Center
Farmington, Conn. 06032

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Dr. James F. May
Anatomy Search Committee
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The Department of Microbiology at the Pennsylvania State University, College of Medicine, Hershey, Pennsylvania, invites applications for a tenure-track position. Candidates for this position should have an established and ongoing program in molecular and cellular immunology, preferably in the area of major histocompatibility complex. The individual is expected to participate in teaching of immunology to medical and graduate students. Please send curriculum vitae, bibliography, a description of research plans, and the names and addresses of three references to: Dr. Fred Rapp, Department of Microbiology, School of Medicine, The Pennsylvania State University, College of Medicine, P.O. Box 850, Hershey, Pa. 17033.

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ASSISTANT PROFESSOR OF MEDICINE to teach gastroenterology subspecialty trainees clinical gastroenterology and endoscopic procedures, including laparoscopy. Supervise gastroenterology and hepatology consultation service at Ben Taub Hospital. Organize research laboratory for chemical research in albumin metabolism, tissue culture, and isolated liver cell techniques, and teach postgraduate students in GI research. Must have M.D. degree with 5 years of postgraduate education in internal medicine, gastroenterology, and 2 years of biochemical research training in a Biochemistry Department. Also must have 2 years of experience on medical school faculty as consultant in gastroenterology or hepatology. Must have ability to teach endoscopy, particularly laparoscopy; ability to perform independent research in hepatology and to train postgraduate students and trainees biochemical techniques in GI-related research; \$70,000 per year; 50 hours per week. Apply at the Texas Employment Commission, Houston, Texas, or send résumé to: Texas Employment Commission, TEC Building, Austin, Texas 78778, Job Order Number 3941403. Ad paid by an Equal Opportunity Employer.

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ASSISTANT RESEARCH BIOCHEMIST OR POST-DOCTORAL FELLOW. Ph.D. or M.D. with training in biochemistry wanted to work on project utilizing monoclonal antibodies to isolate and characterize tumor cell and macrophage surface proteins. Experience in membrane proteins and immunochemistry would be optimal. Applicant will join group interested in the macromolecular assembly of blood coagulation proteins on cells and the subcellular processing of membrane receptors. Support for this position available for 2 years. Send three letters of reference and curriculum vitae to: **Frederick R. Rickles, M.D., L3104, Department of Medicine, University of Connecticut School of Medicine, Farmington, Connecticut 06032.** An Affirmative Action/Equal Opportunity Employer, M/W/H.

The Section of Pediatric Neurology at The University of Michigan in Ann Arbor has a position available at the **ASSISTANT RESEARCH SCIENTIST** level (research faculty track). The research program includes: Investigations of blood-retinal barrier permeability using both in vivo and in vitro approaches. A Ph.D. in physiology or a related field and two or more years of postdoctoral training with experience in blood-retinal or blood-brain barrier physiology are required. The successful applicant will be expected to develop an independent research program and seek substantial salary support for external sources.

Contact: **A. Lorris Betz, M.D., Ph.D., Department of Pediatrics, R6060 Kresge Research II, Ann Arbor, Mich. 48109.** A nondiscriminatory, Affirmative Action Employer.

ASSISTANT SCIENTIST with Ph.D. in mining engineering or engineering mechanics to carry out a cryogenic research program on composites and assist magnetic group in calculations of magnetic fields using the EFTI Code. Includes writing grants and implementing grant proposals with experience with at least one grant. One year of work experience in superconducting magnet design for bed-rock installation, cryogenics, and composites; and 6 months of research experience using EFTI Code are required. Minimum of five publications required. Minimum of 40 hours per week; \$30,000 per year to begin 1 July 1985. *Affirmative Action/Equal Opportunity Employer.* Résumé and references due by 6 May to: **Eileen Breitweiser, Job Service, 206 North Broom Street, Madison, Wis. 53703.** This is an employer paid ad.

DEPARTMENT OF PATHOLOGY, UNIVERSITY OF MASSACHUSETTS MEDICAL CENTER, OPENING FOR ASSOCIATE DIRECTOR OF ANATOMIC PATHOLOGY. The Department of Pathology of the University of Massachusetts Medical Center is seeking a senior pathologist to become associate director of the Anatomic Pathology wing of the department. Requirements: 8 to 10 years of experience in surgical and autopsy pathology; proven effectiveness as a teacher to both medical students and residents; and a dedication to the pursuit of excellence in an academic environment. Specialization is also required in one of the following areas: GI pathology, kidney pathology, immunohistochemistry, and/or diagnostic electron microscopy. Level of appointment: associate professor. *The University of Massachusetts Medical Center is an Equal Opportunity Employer.* Please write (and submit three references) to: **G. Majno, M.D., Chairman, Department of Pathology, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, Mass. 01605.** Application deadline: 30 April 1985.

CHAIRMAN, DEPARTMENT OF PHARMACOLOGY. Kirksville College of Osteopathic Medicine invites applications and nominations for the position of chairman. Applications will be accepted through 30 June 1985.

Qualifications include: Ph.D. or equivalent degree in pharmacology or related basic science discipline; a sincere commitment to success in attracting extramural funding; previous administrative experience desired; leadership ability.

Prospective applicants should submit a letter, current curriculum vitae, and the names of three professional references. Applications, nominations, or requests for additional information should be submitted to:

Allen W. Jacobs, D.O., Ph.D.
Associate Dean for Academic Affairs
Kirksville College of Osteopathic Medicine
800 West Jefferson
Kirksville, Mo. 63501

Kirksville College of Osteopathic Medicine is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

Tenure-track ASSOCIATE/ASSISTANT PROFESSOR OF BIOMEDICAL ENGINEERING (BME) at the Worcester Polytechnic Institute (WPI). WPI offers the M.S. and Ph.D. degrees in BME and the M.S. in clinical engineering. Close cooperation exists with the University of Massachusetts Medical School, local hospitals, and the Massachusetts Biotechnology Research Park, with shared instrumentation including a proposed major center for magnetic resonance imaging. Ph.D. in BME or a related discipline required. Preferred areas of specialization are: biomedical imaging and signal processing, application of optics to biomedicine, but all specialties will be given consideration. Applicants should be interested in developing a strong research program and be committed to quality teaching. WPI is located near the heart of the high technology focus of New England yet offers opportunities for urban, suburban, or rural life-styles as well as varied winter and summer recreational activities. Send résumé, statement of professional interests, and names of three or more references to: **Dr. Robert A. Peura, Coordinator, BME, WPI, Worcester, Mass. 01609. Telephone: 617-793-5447.** WPI is an Affirmative Action/Equal Opportunity Employer.

ASSOCIATE PROFESSOR, RESEARCH TITLE SERIES DEPARTMENT OF RADIATION MEDICINE

Associate research professor position available 1 July 1985 at University of Kentucky Medical Center. Qualified applicants should have 5 years of experience in activities including basic research in neutron and high LET therapy and fields related to radiation oncology, advising basic research efforts of residents, fellows, and junior faculty. Present teaching and clinical activities relate to Cf-252 neutron brachytherapy, biology, acute and delayed tissue effects and leukemogenesis. Send curriculum vitae, bibliography, and names of five references to: **Chairman, Department of Radiation Medicine, University of Kentucky Medical Center, Lexington, Kentucky 40536.** An Equal Opportunity Employer. Deadline: 30 April 1985.

BIOCHEMISTRY FACULTY POSITIONS

Several tenure-track appointments will be available after 1 July 1985 when John N. Fain assumes the chairmanship of biochemistry at the University of Tennessee Center for the Health Sciences. Positions will be sought at all levels, but emphasis will be placed on candidates at the assistant professor level with several years of postdoctoral experience and the ability to carry out an independent research program. Candidates with research interests in cellular biochemistry and metabolism, membranes and receptors, neurochemistry, or eukaryotic molecular biology are encouraged to apply; however, candidates will be considered in all areas. Any interested person should submit a copy of his or her curriculum vitae, research plans, reprints, or preprints of his or her three most significant publications, and two letters of reference to:

John N. Fain, Ph.D.
Department of Biochemistry
University of Tennessee
Center for the Health Sciences
800 Madison Avenue
Memphis, Tenn. 38163
Attention: Cheryl M. Colson

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

ASSOCIATE CHEMIST/ CHEMIST

ZOECON, a company widely recognized for excellence in the development of environmentally sound plant and animal pest control products and for molecular biological/biochemical techniques to improve crop species, has an opening in its Chemical Research Department.

This position requires the ability to perform assignments independently in the synthesis of organic compounds for biological evaluations. If you have a B.S./M.S. in organic chemistry, experience in synthetic organic chemical research, and good analytical and communication skills, this is the job for you!

Please send your résumé to: **ZOECON Corporation, Employee Relations Department, 975 California Avenue, Palo Alto, Calif. 94303.** Equal Opportunity/Affirmative Action Employer.

ZOECON Corporation

POSITIONS OPEN

BIOCHEMIST

Applications are invited for a new tenure-track position at the rank of assistant professor to complement two recent appointments in plant biochemistry and enzyme biochemistry. Preference will be given to candidates with expertise in microbial biochemistry and/or molecular genetics. Primary responsibilities are basic research and graduate education. Equipment and start-up funds provided. Establishment of extramurally funded research program and supervision of M.S. and Ph.D. students are required. Anticipated teaching duties are one quarter of an upper division biochemistry sequence and a one quarter graduate course in area of specialty. Send letter of application, résumé, detailed statement of research interests and goals, and names and telephone numbers of three references to: **Biochemistry Search Committee, Department of Biological Sciences, Michigan Technological University (MTU), Houghton, Mich. 49931.** Review of applications commenced 1 April and will continue until the position is filled. *MTU is an Equal Opportunity Educational Institution/Equal Opportunity Employer.*

BIOLOGY PROFESSOR, 1-year sabbatical replacement for the 1985-1986 academic year with possibility of renewal, to teach general biology for majors and nonmajors as well as at least one of the following: **evolution, population biology, and ethology.** Teaching load: 17 contact hours per week including laboratories. Salary: \$18,000, non-negotiable. Ph.D. expected. Submit letter, curriculum vitae, and names of three references to: **John R. Jungck, Chairperson, Department of Biology, Beloit College, Beloit, Wis. 53511.** All materials must be received by 19 April 1985 in order to be guaranteed consideration. *Beloit College is an Affirmative Action/Equal Opportunity Employer.*

CHAIR, DEPARTMENT OF PHARMACOLOGY.

The University of North Carolina at Chapel Hill seeks applicants for chair of its Department of Pharmacology. We seek an individual who has demonstrated leadership in both research and education, and who is compatible with a well-established, dynamic department. Applications should be accompanied by curriculum vitae and sent to: **P. Frederick Sparling, M.D., Chair, Pharmacology Search Committee, Department of Microbiology, 804 Faculty Laboratory Office Building, 231H, University of North Carolina, Chapel Hill, North Carolina 27514.** Applicants are encouraged to apply by 1 May 1985. *The University of North Carolina is an Affirmative Action/Equal Opportunity Employer.*

DIRECTOR OF THE CENTER OF MARINE SCIENCE.

Applications are invited for the position of director of the Center of Marine Science at the University of Southern Mississippi (pending budget approval). The Board of Trustees of Institutions of Higher Learning has given the University of Southern Mississippi leadership responsibility in this field and the University has designated marine science as one of its Centers of Excellence. The director, who will report to the dean of the College of Science and Technology, will be expected to initiate programs in marine science at the graduate and undergraduate levels and work with faculty to establish and enhance research programs in the field. Applicants, who should have demonstrated success in securing external research funding and possess scholarly credentials sufficient to merit appointment on the faculty of an appropriate department at the rank of professor or associate professor, should send curriculum vitae and the names and addresses of three persons willing to serve as references to: **Professor Grayson H. Rayborn, Chair, Advisory Search Committee, P.O. Box 5165 Southern Station, Hattiesburg, Miss. 39406-5165,** by 1 May 1985.

ECOSYSTEMS ECOLOGIST, UNIVERSITY OF KANSAS, ENVIRONMENTAL STUDIES PROGRAM.

Visiting assistant professor. Ph.D. required. One-year position, renewable up to 3 years. New tenure-track position anticipated in 3 years. Ability to teach in environmental studies and specialty course. Development of an active research program expected. Suitable specialties include plant-animal interactions, ecosystems modeling, nutrient cycling or decomposition processes. Environmental studies teaching experience and/or postdoctoral research experience preferred. Send curriculum vitae, reprints, statement of goals, and three letters of recommendation by 19 April 1985 to: **Dr. Edward A. Martinko, Director, Environmental Studies Program, 224 Snow Hall, The University of Kansas, Lawrence, Kansas 66045.**

Applications for **CHAIRMAN AND UP TO THREE ADDITIONAL FACULTY POSITIONS** in the Department of Anatomical Sciences are sought by the College of Medicine of the University of Oklahoma Health Sciences Center at Oklahoma City. The department also serves the Graduate College and the Colleges of Allied Health, Dentistry, and Pharmacy. Candidates should have the Ph.D. degree and/or the M.D. or D.D.S. degree, and teaching expertise in one or more of the following areas: microanatomy, with emphasis on ultrastructure, neuroanatomy, gross anatomy and/or embryology. Applicants should be active in research and possess the potential for productive interaction with colleagues in the basic and clinical sciences.

A professor and chairman will be appointed as soon as practicable and it is intended that the new chairman will select the other faculty members. Preference for chairman will be given to an active EM investigator and/or cell biologist. Applicants for the position of professor and chairman should send curriculum vitae and the names of three references to the address below. Applicants for the other positions should indicate rank expected and areas of teaching expertise and send curriculum vitae and the names of three references to the address below. A search committee will begin the review of these applications by 30 April 1985.

William H. Knisely, Ph.D.
Executive Associate Dean
College of Medicine
Associate Dean, Graduate College
Health Sciences Center
The University of Oklahoma
P.O. Box 26901
Oklahoma City, Oklahoma 73190

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

VICE PRESIDENT FOR RESEARCH AND PROGRAMS NEW JERSEY MARINE SCIENCES CONSORTIUM

The person sought would be in charge of the Consortium's activities relating to basic research, applied research, and education.

The New Jersey Marine Sciences Consortium has 28 members, primarily institutions of higher education. It administers the New Jersey Sea Grant Program, a significant number of other grants and conducts educational programs. Further, it currently runs two field stations and maintains a fleet of research vessels. Partially supported by the State of New Jersey, its charge includes fostering research on marine issues of interest to state government and industry. The Consortium's strengths lie in the vast and complementary talent of faculty members, at New Jersey's institutions of higher education and the Consortium's ability to coordinate that talent and to joint venture, where appropriate, with industry.

The individual sought should have a Ph.D. and an extensive record of research and scholarship. Further, a high order of administrative skills and accomplishment need to be evident. This is a leadership position in an organization of promise which needs a vice president of research who can command the respect of the scientific, business, and governmental communities. He/she will direct the New Jersey Sea Grant Program and other research activities. Salary and total compensation package highly competitive.

Send résumés to:

Dr. Edward Goldberg
Assistant Chancellor of Higher Education
Chair, Vice President Research
and Programs Search Committee
New Jersey Department of Higher Education
225 West State Street
Trenton, N.J. 08625

Closing date: 26 April 1985.

GENETIC TOXICOLOGIST

(POST DOCTORAL POSITION)

FMC CORPORATION, Chemical R & D Center, located in Princeton, NJ, has an exceptional position available in our modern genetic toxicology laboratories from March 1985 to December 1986.

Major position responsibilities include: developing and validating the CHO-HGPRT forward gene mutation assay at our facility. Opportunity exists for publication of research results and exposure to other toxicologic discipline.

Major position requirements include: a minimum of 2 years experience with tissue culture of mammalian cells, and in-depth knowledge of IN VITRO mutagenicity assays plus a Ph.D. in toxicology, biochemistry, molecular biology, genetics or a related field.

FMC CORPORATION offers compensation to \$25,000 with potential for renewal, a full range of corporate benefits and an exciting and challenging work environment. Interested individuals should send their resume to: Employment Manager, FMC CORPORATION, Chemical R & D Center, Box 8, Princeton, NJ 08540.

An Equal Opportunity Employer M/F

FMC

BIOTECHNOLOGISTS/MOLECULAR BIOLOGISTS MICROBIAL PHYSIOLOGIST AND BIOCHEMICAL ENGINEER

The Upjohn Company, a leader in the worldwide research, marketing, and production of pharmaceuticals, chemicals, and agricultural products, has openings at the B.S., M.S. and Ph.D. levels in Fermentation Research and Development for persons with experience in molecular biology, microbial physiology and biochemical engineering.

MOLECULAR BIOLOGIST/MICROBIAL PHYSIOLOGIST (Ph.D.)

Investigate the physiology of high level protein expression in *E. Coli* and other recombinant organisms and develop processes for improving expression using molecular biology and microbial physiology approaches. Must be proficient in gene expression, expression host development, construction of recombinant genes, and related applications of molecular biology. This Scientist position requires a Ph.D. degree in molecular biology, biochemistry, or microbiology with relevant post-doctoral experience. Please refer to Ad Number 1310-J when calling.

MICROBIAL PHYSIOLOGIST (Ph.D.)

Develop fermentation processes for the production of antibiotics, steroids, proteins and specialty chemicals. Process development in these areas includes both new and established products. This Scientist position requires a Ph.D. in microbiology or biochemistry. A strong background in fermentation biochemistry and regulation of microbial metabolism is highly desirable. Please refer to Ad Number 1311-J when calling.

BIOCHEMICAL ENGINEER (Ph.D.)

Scale up of fermentations and cell culture processes from laboratory to pilot plant and production scale operations. A Ph.D. with a strong background in basic biochemical engineering principles, experience at the laboratory or pilot plant scale, and knowledge of equipment design and operation is required. Please refer to Ad Number 17634-C when calling.

MOLECULAR BIOLOGIST (B.S., M.S.)

Analyze and improve protein expression systems to function under fermentation conditions using recombinant DNA, genetic and biochemical approaches. This Research Associate position requires a B.S. or M.S. degree and demonstrated research experience with recombinant genes, vectors, and hosts. It will involve participation in design, execution and interpretation of experiments. Please refer to Ad Number 16467-J when calling.

Upjohn offers a stimulating research environment, opportunity for career growth, competitive salary and benefits, and relocation assistance.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a mix of excellent cultural, educational and recreational pursuits, including numerous lakes and a four-season climate.

For confidential consideration, please call outside Michigan toll-free 1-800-253-8600, Ext. 3-6767, or inside Michigan collect (616) 323-6767 to request an employment application be sent to you immediately. Please refer to the appropriate Ad Number when calling.

Upjohn

A century of caring

An Equal Employment Opportunity Employer M/F

POSITIONS OPEN

BIostatistician/EPIDEMIOLOGIST Staff Officer

The Medical Follow-up Agency of the National Research Council/National Academy of Sciences is seeking a biostatistician/epidemiologist as staff officer. The Agency undertakes small- to large-scale studies of the health of military veterans, including clinical and occupational epidemiology studies. Candidates should have an advanced degree and extensive experience in biostatistics and epidemiology. Experience with military and veterans record systems is desirable. Please send curriculum vitae and three references to:

Seymour Jablon
NATIONAL RESEARCH COUNCIL
2101 Constitution Avenue, NW
Washington, D.C. 20418

An Equal Opportunity Employer, M/F/H

STANFORD UNIVERSITY CHAIRPERSON SEARCH ANNOUNCEMENT

DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING STANFORD, CALIFORNIA 94305

The Department of Materials Science and Engineering at Stanford University invites applications from highly qualified individuals to serve as professor and chairperson. Qualifications include an earned doctorate or equivalent degree in materials science and engineering or a related field, a strong reputation in materials research, and evidence of ability to provide leadership, coordination, and administration. The department offers B.S., M.S., and Ph.D. degrees and has an outstanding reputation for both teaching and research. The successful candidate should have a research orientation directed towards electronic materials, semiconductor processing, or characterization. *Stanford University is an Equal Opportunity Employer and encourages nominations and applications of women and minority group members.*

Applications will be evaluated between 1 June 1985 and 1 August 1985 and should be sent to: Professor Robert Sinclair, Chairman, Search Committee, Department of Materials Science, and Engineering, Stanford University, Stanford, California 94305.

The Department of The History of Medicine at the University of Wisconsin-Madison seeks candidates for a full-time, tenure-track FACULTY POSITION in the history of early modern or modern European medicine. M.D. or Ph.D. required. Applicants should submit dossier and request three letters of reference to be sent directly to: Judith W. Leavitt, Chair, Department of History of Medicine, 1300 University Avenue, Madison, Wis. 53706. Deadline for applications: 30 April 1985. *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS IN BIOMEDICAL ENGINEERING, BOSTON UNIVERSITY COLLEGE OF ENGINEERING, at the assistant/associate/full professor levels in expanding Department of Biomedical Engineering for September 1985 or January 1986. Applicants should have an earned doctorate, be committed to quality teaching at both undergraduate and graduate levels, and have the desire to develop strong research programs. Collaboration with the Boston University School of Medicine or other engineering departments may be facilitated through a joint faculty appointment. Candidates with backgrounds in image processing, computer science, chemical engineering, mechanical design, electronics, computer engineering, biomechanics and materials, or robotics are especially welcome. Opportunities for part-time (adjunct) faculty positions and for collaborative arrangements with nearby institutions involved in biomedical research and development are also available. Candidates should send résumé, list of publications, names and addresses of five references, and a brief statement of teaching and research interests to: Dr. Eugene Smithberg, Chairman, Engineering Search Committee, College of Engineering, 110 Cummington Street, Boston, Mass. 02215. *Boston University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

Applications are invited for CHAIRPERSON of the BIOMEDICAL THEORY AND COMPUTING RESEARCH GROUP in The University of Calgary, Faculty of Medicine. Appointment available jointly in the appropriate Department of the Faculty of Medicine and/or the Departments of Academic Computing Services, Computer Science, or Electrical Engineering. Position requires M.D., Ph.D., or equivalent training; plus at least 5 years of experience in biomedical computing, including: management of scientific and medical computing services; programming in mixed environments; independent, externally funded biomedical research. Teaching at undergraduate and graduate levels an asset. Duties will include: recruitment of faculty in the development of a research group; conducting externally funded research; developing and administering faculty computing resources and personnel; consulting with computing users and advising them; maintaining liaison between medical and computing departments; and contributing to undergraduate and graduate teaching and computer training.

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

The closing date for application is 1 May 1985. Please send curriculum vitae, a description of career research interests, and the names of three referees to:

Dr. R. B. Church
Associate Dean (Research)
Faculty of Medicine
The University of Calgary
3330 Hospital Drive, NW
Calgary, Alberta, Canada T2N 4N1

DEAN, COLLEGE OF PHARMACY UNIVERSITY OF PUERTO RICO

Applications are invited for the position of dean of a U.S.-accredited College of Pharmacy with a developing graduate program. Candidates should have a B.S. in pharmacy, an earned doctorate, appropriate administrative experience, evidence of successful interaction with the pharmaceutical industry, and demonstrated leadership ability. Submit credentials and references by 30 May 1985 to: Dean's Search Committee, College of Pharmacy, University of Puerto Rico, Medical Sciences Campus, G.P.O. Box 5067, San Juan, Puerto Rico 00936. *An Equal Opportunity/Affirmative Action Employer.*

The Department of Physics at Memorial University of Newfoundland invites applications for a tenure-track FACULTY POSITION, subject to final budgetary approval, in experimental condensed matter/low temperature physics or a related area. Preference will be given to applicants who would complement the present experimental and theoretical condensed matter/molecular physics group. Facilities include a liquid helium production plant within the department and excellent machine, electronics, glass-blowing, and welding shops. Applications, including curriculum vitae and the names of three referees, should be forwarded to:

Dr. D. H. Rendell, Head
Department of Physics
Memorial University of Newfoundland
St. John's, Newfoundland, Canada A1B 3X7

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

FACULTY POSITIONS IN PHARMACOLOGY

The Department of Pharmacology, University of Missouri-Columbia, extends the search for a tenure-track position at the assistant professor rank. Candidates must have a Ph.D. and/or M.D. degree with two or more years of postdoctoral research experience preferably in a Department of Pharmacology. Endocrine, cardiovascular pharmacology, receptor regulation, and membrane function are areas of particular interest that we plan to develop through the recruitment of additional faculty. Candidates will be evaluated on the basis of research and teaching potential. Successful candidates will be expected to obtain extramural research funding and participate in the teaching of medical and graduate students. Salary will be commensurate with experience. Please send a brief description of research plans, curriculum vitae, and the names of three references by 1 June 1985 to: Dr. Hyun Dju Kim, Professor and Chairman, Department of Pharmacology, University of Missouri-Columbia, School of Medicine, M517B Medical Sciences Building, Columbia, Mo. 65212. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

The University of Michigan Medical School, Department of Radiology, has on occasion open FACULTY POSITIONS within the department and its affiliated hospitals. Physicians filling these positions will take part in the programs of patient care, teaching, and research in the Department of Radiology. They will supervise the activities of house officers and aid in the teaching of house officers and medical students. Qualified applicants must be American Board of Radiology-certified or Board-eligible. Previous training or work experience in an academic institution as well as demonstration of previous academic research and teaching experience are desirable. Academic rank will depend on qualifications and experience. Interested applicants should contact: William Martel, M.D., Chairman, Department of Radiology, The University of Michigan Medical School, Ann Arbor, Michigan 48109. *A nondiscriminatory, Affirmative Action Employer.*

THREE FACULTY POSITIONS (assistant or associate professor) for candidates with at least 2 years of postdoctoral experience are available for 1 July 1985. Persons with research interests in cardiovascular physiology (emphasis on blood flow to reproductive tissues), smooth muscle physiology (emphasis on cellular basis of uterine contractility), and renal cell mechanisms are preferred. Responsibilities include participation in medical and graduate teaching commitments of the department. Salaries competitive.

Send inquiries along with curriculum vitae and names of three references to: Dr. Gerald J. Pepe, Chairman, Department of Physiology, Eastern Virginia Medical School, P.O. Box 1980, Norfolk, Virginia 23501.

Eastern Virginia Medical School is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION

The Department of Nutrition, Université de Montréal, invites applications for a FACULTY POSITION at the level of associate or full professor in nutritional biochemistry of metabolism. Candidates should have a strong background in intermediary metabolism and will be expected to establish an independent research program. A working knowledge of French is required within 2 years of appointment. *In accordance with Canadian immigration requirements, this advertisement is directed in priority to Canadian citizens and permanent residents.* Send curriculum vitae, a description of future research plans, and a list of three references to: Dr. Eugenio Rasio, Chairman, Department of Nutrition, Université de Montréal, P.O. Box 6128, Station "A," Montréal, Québec, Canada H3C 3J7.

FACULTY POSITIONS IN MOLECULAR IMMUNOLOGY

The Department of Microbiology and Molecular Genetics at the University of Cincinnati College of Medicine is expanding its faculty and is currently searching for individuals to fill tenure-track positions in the area of molecular immunology. Applicants should submit curriculum vitae and a short statement of research accomplishments and direction for future research, along with the names of three scientists willing to write letters of recommendation. These should be forwarded to: Dr. Jerry B. Lingrel, Chairman, Department of Microbiology and Molecular Genetics, University of Cincinnati College of Medicine, Cincinnati, Ohio 45267-0524. *The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer.*

IMMUNOLOGY

The West Virginia School of Osteopathic Medicine (WVSOM) invites applications for a tenure-track, 9-month appointment position in parasitology, as well as immunology. Successful candidate must exhibit a strong commitment to teaching and will be expected to participate in a general and pathogenic microbiology course, participate in the committee structure of the school, and take part in a developing research program.

Qualified individuals must hold a Ph.D. in microbiology or immunology and postdoctoral experience is desirable.

Applications, including current curriculum vitae and three letters of reference, should be sent to: Michael K. Cope, Ph.D., Associate Dean for Academic Affairs, West Virginia School of Osteopathic Medicine, 400 North Lee Street, Lewisburg, West Virginia 24901. Deadline for accepting applications is 30 April 1985.

WVSOM is an Affirmative Action/Equal Opportunity Employer.

NEW JERSEY CENTER FOR ADVANCED BIOTECHNOLOGY AND MEDICINE DIRECTOR

The University of Medicine and Dentistry of New Jersey and Rutgers University announce their search for a Director of their joint endeavor, the New Jersey Center for Advanced Biotechnology and Medicine (NJ-CABM). The NJ-CABM will be housed in a new core facility to be built on the shared campus of the Universities. This facility will serve some 20 scientists, their staffs and students, who will conduct basic research in the areas of molecular biology, cell biology and molecular pharmacology. In addition, NJ-CABM will encompass two nearby satellite facilities, which will be devoted to research in the production and separation of cells and cell products and clinical research in pharmacology and metabolism. The programs of the NJ-CABM will be fully integrated with those of the two sponsoring universities. NJ-CABM will also serve the industrial and statewide academic communities of New Jersey through collaborative and educational ventures and by interaction with the Governor's Commission on Science and Technology.

The Director will have broad latitude in and extensive responsibility for the design and conduct of these new programs. This is considered to be a major leadership position in the state's two largest public research-oriented universities. We seek an outstanding scientist with proven administrative skills and creativity to develop a center renowned for scientific excellence, as well as for service to the broad academic and corporate sectors of the State.

Replies should include a statement of interest, a resume and at least three references. They should be addressed to **Norman H. Edelman, M.D., Associate Dean for Research, UMDNJ-Rutgers Medical School, P.O. Box 101, Piscataway, NJ 08854.** The Universities are equal opportunity employers.

SENIOR RESEARCH SCIENTIST

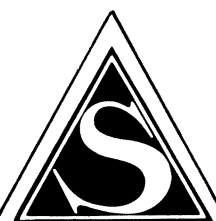
VIRAL IMMUNOLOGY

Sandoz, Inc., East Hanover, New Jersey, is currently seeking a SENIOR RESEARCH SCIENTIST to join a newly formed team of immunologists investigating the field of monoclonal antibodies of human and/or murine origin. This research will involve the construction of hybridomas, production and testing of the antibodies, preclinical and clinical testing of their therapeutic usefulness.

The ideal candidate should possess a Ph.D., or equivalent experience in virology or a related field, with a minimum of 2 years postdoctoral training in a related research program. A background in the molecular biology and immunology of human herpes viruses is preferred.

Positions at Sandoz offer personal satisfaction, professional opportunity/challenge, competitive salaries and an excellent benefits package. Our campus-like facilities are conveniently located in Northern New Jersey.

For prompt consideration, please forward a detailed resume including salary requirements together with a list of relevant publications which have been published in major scientific journals to:



Personnel Manager
Sandoz Research Institute
Sandoz, Inc.
Route 10 (403-1)
East Hanover, NJ 07936
An Equal Opportunity Employer M/F

MOLECULAR BIOLOGISTS

The Agricultural Biotechnology Group of Rohm and Haas Company has immediate openings for experienced BIOLOGICAL SCIENTISTS at its Research Center in Spring House, PA. They will be members of a multidisciplinary team dedicated to developing novel products for agriculture.

We are looking for a **Ph.D. Plant Molecular Biologist or Plant Biochemist**, with expertise in procedures of plant transformation, tissue culture, selection and regeneration. Postdoctoral experience is preferred. This Senior Research Scientist will have responsibility for initiating and conducting laboratory programs for improving crop characteristics by molecular approaches.

We also seek two scientists to conduct and support laboratory programs for improving crop lines:

- **M.S. Plant Scientist (Molecular Biology, Genetics, Biochemistry, Physiology)**, with two to five years of postgraduate experience in plant molecular biology.
- **M.S. Biologist**, with two to five years of direct experience in bacterial genetics and molecular biology.

Spring House sits twenty miles north of center-city Philadelphia — amidst suburbs, estates, and countryside.

Rohm and Haas offers a highly competitive salary and benefits program, including relocation assistance. We are committed to growth through research. We maintain a working climate conducive to professional development, and we promote from within.

Candidates should be U.S. citizens or permanent residents. Interested persons should send a detailed resume to:

Recruiting and Placement #1685



Equal Opportunity Employer M/F.

POSITIONS OPEN

FACULTY POSITION (ORGANIC CHEMISTRY) (SEARCH EXTENDED)

The State University of New York (SUNY), College of Technology, seeks an individual for a tenure-track position beginning September 1985 for Chemical Technology/Biotechnology Program. Involvement with undergraduate research expected. **Qualifications:** Ph.D.; must be able to teach courses in organic, polymer, and industrial chemistry. **Salary:** Commensurate with training, experience. Send curriculum vitae and three letters of recommendation by 1 May 1985 to:

Director of Personnel/AA
SUNY College of Technology, Box 502
811 Court Street
Utica, N.Y. 13502

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITIONS/OCCIDENTAL COLLEGE. The Geology Department invites applicants for a regular faculty position at the assistant professor level. Candidates should have a Ph.D. and teaching and research interests in either of the following broad fields: sedimentation, paleontology, field geology; and/or structural geology, geophysics, planetary sciences. Occidental is a small liberal arts college with a commitment to educational excellence. This is a unique opportunity to become involved in the geology curriculum due to recent retirements in the department. Applicants should submit complete curriculum vitae, a statement of research and teaching interests, and the names of at least three references to: **Dr. James A. Woodhead, Chair, Geology Department, Occidental College, 1600 Campus Road, Los Angeles, Calif. 90041.** Closing date is 30 April 1985.

Occidental is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

TEXAS—GROSS ANATOMY. Full-time position at assistant/associate professor level available 1 July 1985. Responsibilities, in addition to maintaining an active research program, include instruction in gross anatomy (total body) for dental students and teaching dental hygiene and graduate students. Ph.D. degree with training in gross anatomy required. Postdoctoral training, record of research and research funding, and teaching experience preferred. Rank and salary commensurate with qualifications. Send curriculum vitae and names and addresses of three references by 1 June to: **Dr. Patricia L. Blanton, Chairman, Department of Gross Anatomy, Baylor College of Dentistry, 3302 Gaston Avenue, Dallas, Texas 75246.** *Equal Opportunity/Affirmative Action Employer.*

GROSS ANATOMIST

Anatomist needed to teach gross anatomy. Applicant should have 1 to 2 years of experience, hold M.D. or Ph.D. degree, and have demonstrated competence in both teaching and research. Prefer individual with research interest in neuroscience. Position available at assistant professor level; salary commensurate with qualifications.

Send complete curriculum vitae, including names of three professional references, to: **Dr. J. W. Wagner, Head, Department of Anatomy, College of Medicine, Texas A&M University, College Station, Texas 77843.**

Texas A&M University is an Equal Opportunity/Affirmative Action Employer.

OCEANOGRAPHERS. The Skidaway Institute of Oceanography of the University System of Georgia invites applications for up to five full-time research positions. Depending on qualifications appointment may be at any academic level. Applicants must have a Ph.D. degree, preferably postdoctoral experience. Successful candidates will be expected to obtain outside funding to support independent and/or cooperative research programs including approximately 50 percent of their salaries. Preference will be given candidates whose interests complement those of faculty currently at the Institute and/or whose studies can be applied to understanding oceanic processes in nearshore and continental shelf waters.

Letters of inquiry or application, curriculum vitae, a statement of research interests, and the names of four references may be sent to: **Director, Skidaway Institute of Oceanography, P.O. Box 13687, Savannah, Ga. 31416.** The closing date for receipt of applications is 15 May 1985 or after that date until available positions have been filled.

The Skidaway Institute of Oceanography is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

HEAD OF NEUROSCIENCE

The Oregon Regional Primate Research Center (ORPRC) is developing a new program in the neurosciences and is looking for an outstanding scientist to recruit and lead a group of four additional investigators active in modern areas of neurobiology. All of these individuals will be expected to develop independent, funded research programs. The salaries for these positions are paid by the NIH core grant. Preference will be given to those with clear records of leadership who can most effectively use our unique nonhuman primate resources for all or part of their research. Excellent opportunities exist for close interactions with academic departments and the new Institute for Molecular Biology and Brain Science of the Oregon Health Sciences University, with which the Primate Center enjoys a close affiliation. Developmental neurobiologists with backgrounds in cellular or molecular biology are especially encouraged to apply. Submit letter of application, curriculum vitae, statement of research experience and plans, and names of three references to: **The Neurobiology Search Committee, Oregon Regional Primate Research Center, 505 Northwest 185 Avenue, Beaverton, Ore. 97006.** *The ORPRC is an Equal Opportunity/Affirmative Action Employer.*

LABORATORY DIRECTOR

Intellectually challenging stable academic research position with both long-term career and leadership capacity potential. A typically qualified candidate should hold the Ph.D. degree (U.S. or U.K. school) having had at least one (preferably more) postdoctoral experiences. Background in cell biology and/or biochemistry needed with experience in applied immunochemistry and related protein characterization techniques. Work at present entails the above plus protein-lipid interactions. Salary and fringe benefits competitive. *Equal Opportunity Employer.* Send curriculum vitae and references to:

GI Research Unit
Cleveland Clinic Foundation
9500 Euclid Avenue
Cleveland, Ohio 44106

PATHOLOGIST—MICROBIOLOGIST. Joint appointment at East Tennessee State University (ETSU), Quillen-Dishner College of Medicine, and Mountain Home VA Medical Center. We are seeking an AP/CP-trained pathologist to direct the clinical microbiology laboratory at the VA hospital and assist pathology residents in the autopsy service. Experience and Board-certification/eligibility in medical microbiology is desired. Evidence of interest in teaching and research requested. Replies to: **Philip S. Coogan, M.D., Chairman, Department of Pathology, P.O. Box 19540A, ETSU, Johnson City, Tennessee 37614.** *Equal Opportunity/Affirmative Action Employer.*

PHYSIOLOGY. The University of Wisconsin-Madison, Department of Physiology, has a tenure-track junior faculty position available. Applications are invited from persons with postdoctoral experience and a demonstrated interest in cellular or molecular physiology. Applications are particularly encouraged from persons with expertise in the neurosciences. Duties include both graduate and undergraduate teaching and the establishment of an independent research program. Interested candidates should submit curriculum vitae, complete bibliography, a statement of research interests, and have letters of reference from three individuals sent to: **Richard C. Wolf, Department of Physiology, University of Wisconsin-Madison, 1300 University Avenue, SMI, Madison, Wis. 53706.** To receive full consideration, applications should be received by 1 May 1985. Search will remain open until a suitable candidate is found. *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

PLANT BIOTECHNOLOGY

An opening exists for an individual with a strong background in plant growth regulators, secondary metabolites, and analytical techniques. Familiarity with basics of genetic engineering of plant cells is desired. It is expected that the successful candidate will have either a Ph.D. or M.S. with additional training.

Interested applicants should submit résumés to:

Manager, Personnel Services
Corn Products
Moffett Technical Center
P.O. Box 345
Argo, Illinois 60501

An Equal Opportunity Employer, M/F

POSITIONS OPEN

NEUROANATOMIST to join NIH 5-year-funded study of memory substrates in primates. HRP, histochemical, and metabolic techniques to be added to current electrophysiologic studies of adaptive plasticity in spinal and supraspinal motor function. Collaborative and independent research. Salary commensurate with qualifications and experience. Potential for long-term research position. Send curriculum vitae, research interests, and names of three references to: **Dr. J. R. Wolpaw, CNS Studies Section, Wadsworth Center for Laboratories and Research, Empire State Plaza, Albany, New York 12201.** *An Equal Opportunity/Affirmative Action Employer.*

PHYSIOLOGIST/PHARMACOLOGIST—The Department of Physiology and Pharmacology at the University of South Dakota invites applications for one, and possibly two, tenure-track positions as **assistant or associate professor.** A Ph.D. or M.D. degree and a minimum of 2 years of postdoctoral experience are required. Preference will be given to candidates with experience in autonomic-cardiovascular pharmacology. Candidates with expertise in other areas of physiology and pharmacology will be given consideration. Selection will be based on scientific credentials and the potential to establish an outstanding independent research program. Excellence in teaching is expected. Applicants should arrange to have their curriculum vitae, the names of three references, and a statement of research interests sent to: **Chairman, Department of Physiology and Pharmacology, The University of South Dakota, School of Medicine, Vermillion, S.D. 57069.** *Affirmative Action/Equal Opportunity Employer.* Closing date for application is 17 May 1985.

PLANT TISSUE CULTURE PROCESS RESEARCH

Crop Genetics International, a plant biotechnology company, is seeking a Ph.D. or M.S. with appropriate experience to develop and execute an applied research program. Candidates must have an extensive background in manipulation and regeneration of in vitro plant systems. Salary commensurate with qualifications and experience. Please send curriculum vitae, copies of transcripts, and list of references to: **Dr. Peter S. Carlson, Crop Genetics International, 7170 Standard Drive, Dorsey, Md. 21076.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL—PLANT GROWTH. Position to study the mechanism of plant cell enlargement, focusing on light-growth responses, the role of turgor pressure in cell growth, or the viscoelastic properties of cell walls. Methods include stress relaxation, pressure probe, and ion-specific electrodes. Send curriculum vitae, brief description of research interests, and names and telephone numbers of references to: **Dr. Daniel Cosgrove, Department of Biology, 202 Buckhout, University Park, Pa. 16802.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW. The Department of Medicine, Uniformed Services University of the Health Sciences (USUHS), is seeking applicants for a postdoctoral fellow position. Minimum qualifications are a Ph.D. degree with a background in microbiology and immunology. Applicant will be responsible for execution of an investigation into toxic properties of leptospira. Willingness to learn separation and chromatography and monoclonal antibody techniques is important. Salary based on applicant's qualifications. Interested candidates should submit curriculum vitae, bibliography, and names of three references to: **Directorate of Civilian Personnel, USUHS, 4301 Jones Bridge Road, Bethesda, Maryland 20814-4799.** Applications will not be returned. *USUHS is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available after 1 May. Synthesis and study of conformation of carcinogen-oligonucleotide adducts. Strong background in nucleic acid chemistry or organic synthesis preferred. Salary about \$21,000 per year. Send résumé and references to: **Professors R. Shapiro or G. Underwood, Department of Chemistry, New York University, 4 Washington Place, New York, N.Y. 10003.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS available for studies on the biosynthesis, structure, and immunocytochemical localization of specific nervous tissue glycoproteins and proteoglycans. Applicants should send curriculum vitae and the names of three references to: **Dr. Richard U. Margolis, Department of Pharmacology, New York University Medical Center, 550 First Avenue, New York, N.Y. 10016.**

Postdoctoral Positions In Molecular Genetics

Smith Kline & French Laboratories, located in suburban Upper Merion, Pennsylvania, is seeking outstanding individuals to join a multidisciplinary research effort investigating the molecular biology of human colon adenocarcinoma. The successful applicants will participate in a series of joint projects between our Departments of Tumor Biology and Molecular Genetics. Positions are available to study:

- the regulation of oncogene expression in primary cultures of human colon carcinoma.
- the induction of cell-cycle specific genes by G1 peptides and related growth factors.
- manipulation of oncogene expression in normal and neoplastic colon epithelial cells.

Candidates should have:

- a Ph.D. in Molecular Genetics
- 0-3 years postdoctoral experience.
- a growing publication record.
- clear and concise communication skills.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your CV and names of three references to: Mr. Walter B. Flagg, Senior Employment Consultant, **SmithKline Beckman Corporation**, 1586 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

SK&F
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Sr. Research Scientist

Be An Important Part Of Our R&D Effort

CIBA-GEIGY is a multinational corporation respected worldwide for its research and development of pharmaceuticals. Currently we have a supervisory opportunity in our Cardiovascular/Neuroscience Section for a Senior Research Scientist interested in the study of peptidase-enzyme systems as well as the alterations of peptidase/protein levels via enzyme inhibition as potential drug targets.

Qualified applicants must possess a Ph.D, Post Doctoral degree preferred, and those with particularly noteworthy graduate training will also be considered. Your experience should include enzyme/peptidase purification, protein characterization (HPLC, sequencing desirable, but not necessary), enzyme analysis via spectro/fluorometer techniques as well as peptide/enzyme in vivo quantitation (RIA, ex vivo assays). Superior problem solving, interpersonal and communication skills are important.

CIBA-GEIGY offers a competitive salary, excellent benefits and a professional, progressive environment. For immediate consideration, please forward resume with salary history, in confidence to: Ms. M. Saul, The Pharmaceuticals Division, CIBA-GEIGY, 556 Morris Avenue, Summit, NJ 07901. We are an equal opportunity employer m/f/h/v.

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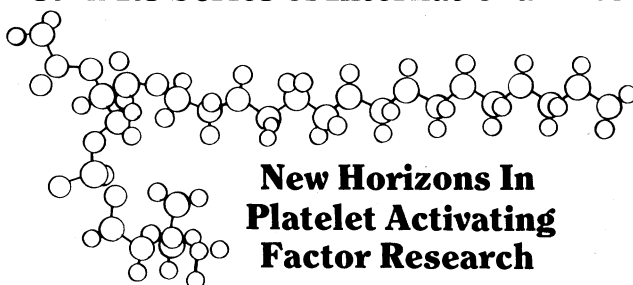
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New Horizons In Platelet Activating Factor Research

October 15-18, 1985

Mariner's Inn

Palmetto Dunes Resort

Hilton Head Island, South Carolina

Oral and poster communications related to the themes of the meeting are invited, and should be submitted as abstracts.

For further information and registration forms contact either:

Dr. C.M. Winslow or Dr. M.L. Lee

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Tentative Program:

Biosynthesis and Metabolism
Origins of Platelet Activating Factor
Cellular and Tissue Responses
Pathophysiology
Role of Platelet Activating
Factor in Human Disease

Attendance will be limited to 175 participants. Early inquiry is encouraged.

POSITIONS OPEN

Yale Parasitology and Tropical Medicine Program MacArthur Center

During 1985-1986 there will be vacancies for **POSTDOCTORAL FELLOWS** to work in the general area of molecular parasitology. The project investigators are: Dr. Donald Crothers, Department of Chemistry (structure of kinetoplast DNA and gene expression in African trypanosomes); Dr. Alan Sartorelli, Department of Pharmacology (mechanism of action and development of chemotherapeutic agents for African trypanosomiasis and malaria); Dr. Robert Tesh, Department of Epidemiology and Public Health (molecular biology, diagnosis and epidemiology of leishmanial infections); and Dr. Frank F. Richards, Department of Internal Medicine (molecular biology and surface chemistry of African trypanosomes).

Applicants interested in working in one of these research groups should contact one of the four project investigators by letter, enclosing curriculum vitae, a list of publications, and the names of three scientists familiar with the applicants recent scientific work.

Please send applications to one of the four Project Investigators by 6 May 1985: c/o Charlene Sullivan, Yale MacArthur Center, Yale University School of Medicine, 333 Cedar Street, P.O. Box 3333, New Haven, Conn. 06510. Yale University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOW

Postdoctoral position available in a leading research group for studying mutations in genes for collagens in human genetic disease. Background in molecular biology helpful but not essential. Interested candidates should send a letter describing research experience with curriculum vitae and three letters of recommendation to: D. J. Prockop, M.D., Ph.D., Department of Biochemistry, University of Medicine and Dentistry of New Jersey-Rutgers Medical School, P.O. Box 101, Piscataway, N.J. 08854. An Equal Opportunity/Affirmative Action Employer, M/F/H/V.

POSTDOCTORAL POSITION available immediately, to participate in ongoing studies of stress proteins in normal and abnormal mammalian embryonic development. Training in techniques of molecular biology and/or cell biology (electron microscopy) required. This is a collaborative program between Professor C. L. Markert in Biology and Professor F. Naftolin in Obstetrics-Gynecology. Starting salary: \$18,000 per year. Send curriculum vitae and names of three references to: Dr. Frederick Naftolin, Chairman of Obstetrics-Gynecology, Yale University School of Medicine, 333 Cedar Street, New Haven, Connecticut 06510. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION, September 1985. The Dana-Farber Cancer Institute is seeking to fill one research position at the postdoctoral level to use molecular biology techniques to study embryonic and neuronal cell differentiation in cell culture models. Experience in recombinant DNA techniques including DNA sequencing, expression vector construction, S₁ mapping, and so forth preferred but not essential. Joint appointment will be held in an appropriate department at Harvard Medical School. Send curriculum vitae and names of three references to: Dr. Lorraine Gudas, Dana-Farber Cancer Institute, 44 Binney Street, Boston, Mass. 02115. An Affirmative Action/Equal Opportunity Employer.

TWO POSTDOCTORAL POSITIONS are open in the Research Center of the University of Montreal-affiliated Notre-Dame Hospital to study: (i) regulation of cholesterol synthesis via mevalonate shunting [JBC 259, 8939 (1984)] and (ii) ketone body utilization in the liver [JBC 257 3434 (1982)]. Candidates should be proficient in the use of radioisotopes for metabolic studies and HPLC. Send curriculum vitae to: Dr. Henri Brunengraber, Research Center, Notre-Dame Hospital, 1560 East Sherbrooke Street, Montreal, Quebec, Canada H2L 4M1. Telephone: 514-876-7477.

POSTDOCTORAL POSITION for Ph.D. in biochemistry or related field for project involving purification of human tumors-associated antigens and development of hybridoma monoclonal antisera. Experience with protein purification techniques required. Experience with tissue culture and/or radioimmunoassay techniques also desirable. Reply with curriculum vitae to: Dr. Elliot Alpert, Department of Medicine, Room 533D, Baylor College of Medicine, One Baylor Plaza, Houston, Texas 77030.

POSITIONS OPEN

POSTDOCTORAL POSITION

AVAILABLE IMMEDIATELY. Specific research interests are: (i) internalization and processing of bacterial toxins by mammalian cells, and (ii) molecular basis for pathogenesis of *Pseudomonas* and *Candida* infections. Research may involve receptor isolation, intracellular protein trafficking, or studies of pathogenesis in a burned mouse model. Send curriculum vitae and two letters of recommendation to: Dr. Catharine B. Saelinger, Department of Microbiology and Molecular Genetics, University of Cincinnati College of Medicine, Cincinnati, Ohio 45267-0524. The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION for recent Ph.D. in pharmacology or related field available 1 July 1985 for 1 year, renewable for 1 year, to study the regulation of myocardial protein degradation and the cardiac toxicity of halogenated chemicals and calmodulin inhibitor drugs. Multidisciplinary investigations at all levels of organization of the heart. Salary \$18,000 per year. Closing date for receipt of applications is 30 April 1985. Send résumé and names and addresses of three references to: Dr. Albert E. Langley, Department of Pharmacology/Toxicology, Wright State University School of Medicine, Dayton, Ohio 45435. Wright State University is an Affirmative Action/Equal Opportunity Employer.

TWO POSTDOCTORAL POSITIONS. Research in endocytosis and membrane biogenesis during oogenesis and in establishment and maintenance of epithelial cell polarity. Cell biological, molecular, and immunological approaches are being used to study intracellular membrane systems and pathways of molecules after endocytosis. Send curriculum vitae and names of three references to: Doris Wall or Enrique Rodriguez-Boulant, Department of Cell Biology, Cornell Medical College, 1300 York Avenue, New York, N.Y. 10021. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS IN BIOCHEMICAL AND IMMUNO-TOXICOLOGY—Two positions available in the Division of Experimental Pathology and Toxicology. One position involves studies on xenobiotic activation and toxicity (R. J. Rubin); the other the effect of toxicants on immunoregulation (D. S. Newcombe). Send curriculum vitae and names of three references to appropriate investigator: Department of Environmental Health Sciences, Johns Hopkins School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, Md. 21205. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately on NIH training grant. Candidates should apply directly to either Dr. Andrew J. Lechner (physiological and ultrastructural changes in the starved perinatal lung) or Dr. Maw-Shung Liu (myocardial and hepatic metabolism in endotoxic shock). Dr. Liu will be available at FASEB meeting, Anaheim California, 20 April 1985. Submit letter of interest, curriculum vitae, and the names of three references to the above: Department of Physiology, St. Louis University School of Medicine, St. Louis, Mo. 63104. St. Louis University is an Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE, Department of Human Genetics. To investigate new molecular genetic methodology that will facilitate rapid linkage analysis of loci in the human major histocompatibility complex as well as other gene loci. Candidates must have a Ph.D. in molecular biology as well as proven experience in molecular genetic techniques, particularly in the field of molecular immunology, cDNA library construction (from frozen human tissues), and generation of muscle-specific and lymphocyte-specific cDNA probes, as well as cosmid and phage cloning. Full-time position with annual salary of \$18,500. Interested applicants should submit their résumés to: Dr. S. M. Weissman, Yale University School of Medicine, Department of Human Genetics, SHM 1125A, 333 Cedar Street, New Haven, Conn. 06510. Yale University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH POSITION: DEVELOPMENTAL BIOLOGY

To study regulation of expression of cloned genes, particularly those encoding cytomatrix proteins, in sea urchin embryos. Available immediately; salary commensurate with experience. Send curriculum vitae and names of informed referees to: Dr. Bruce Brandhorst, Department of Biology, McGill University, 1205 Dr. Penfield Avenue, Montreal, Quebec, Canada H3A 1B1.

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN MEDICAL LABORATORY IMMUNOLOGY

Applications are being accepted for 1 July 1985 and 1 January 1986. This 2- to 3-year program provides broad training in immune mechanisms and disorders in man, training in clinical investigation and the use and significance of laboratory procedures for the assessment of humoral and cellular immune functions, disease diagnosis, and treatment evaluation. Opportunities exist for original research using clinical materials. Individuals with a Ph.D. or M.D. degree, strong commitment to an academic career, prior education and experience in immunology, and communication skills are desired. Inquiries should be addressed to: Dr. John L. Fahey, Department of Microbiology and Immunology, University of California, Los Angeles, School of Medicine, Los Angeles, Calif. 90024. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATES IN IMMUNOLOGY

Two- to 3-year positions are available with a group of established investigators with major interests in human immunology. Positions are available in the following areas: (i) lymphocyte- and leukemia-derived growth factors and their receptors, (ii) functions of T lymphocyte subpopulations, (iii) regulation of B cell maturation, and (iv) cellular immune response to specific antigens. Individuals with a recent M.D. or Ph.D. degree, strong commitment to an academic career, and research training are desired. Inquiries should be addressed to: John L. Fahey, M.D., Human Immunobiology Group, Department of Microbiology and Immunology, University of California, Los Angeles, School of Medicine, Los Angeles, Calif. 90024. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH APPOINTMENTS

are occasionally available in the Departments of Biochemistry, Biophysics and Medical Physics, Botany, Microbiology and Immunology, Molecular Biology, Physiology-Anatomy, and Zoology, and the Department of Biomedical and Environmental Health Sciences (School of Public Health) at the University of California at Berkeley, Berkeley, California 94720. Appointments are normally made for 1 year, but with the possibility of renewals for a maximum of two more years. A description of the research interests in the faculty in each department is available from the department upon request, and highly qualified persons are invited to apply directly to the faculty member with whom they wish to work. If no position is available with that faculty member, the application may be circulated to others in the same or other departments with similar research interests. Applications should include a résumé, a brief statement of research interests and goals, and the names and addresses of three references. The University of California is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL/RESEARCH ASSOCIATE available for research on the biochemistry and molecular biology of cytochrome P-450 or mechanisms of carcinogenesis. Salary is dependent on experience. Send curriculum vitae to: Dr. C. S. Yang, Department of Biochemistry, University of Medicine and Dentistry-New Jersey Medical School, 100 Bergen Street, Newark, N.J. 07103. An Equal Opportunity/Affirmative Action Employer, M/F/H/V.

POSTDOCTORAL RESEARCH ASSOCIATE POSITION available (2-year term) to study alcohol-induced changes in protein kinases that are observed in Fetal Alcohol Syndrome. Applicants should have experience with enzyme isolation and purification, hormone and metabolite assays, and electrophoresis. Salary commensurate with experience. Please send curriculum vitae and the names of three references to: Sam Pennington, Department of Biochemistry, East Carolina University School of Medicine, Greenville, N.C. 27834. Screening began 1 April 1985. East Carolina University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH OPPORTUNITIES

Postdoctoral openings are available in the following areas: (i) development and applications of ultrahigh (0.01-Hz)-resolution carbon-13 NMR; (ii) NMR studies of glycoproteins, glycopeptides, oligosaccharides, and polysaccharides; and (iii) NMR studies of nonenzymatic in vivo reactions pertinent to diabetes and aging. Send curriculum vitae and names of at least three references to: Professor Adam Allerhand, Department of Chemistry, Indiana University, Bloomington, Ind. 47405. Indiana University is an Equal Opportunity/Affirmative Action Employer.

Applications are invited for a tenure-track faculty appointment in

PHYSICAL OCEANOGRAPHY

to be made in the Physics Department, Memorial University of Newfoundland, subject to final budgetary approval. Rank and salary are negotiable and commensurate with the qualifications of the appointee. Considerable research experience beyond a Ph.D. degree is preferred. The position offers a challenging academic career, with stimulating research opportunities focussing in the North-west Atlantic and the Canadian Arctic. The department's physical oceanography group is engaged in theoretical and experimental studies of acoustic scattering, continental shelf and shelf break dynamics, exchange in fjords, and Lagrangian formulations of dynamical and dispersion problems. The group interacts closely with other oceanographers through the Newfoundland Institute for Cold Ocean Science.

Candidates are sought whose primary interests are in theoretical continental shelf dynamics and numerical techniques, but qualified individuals with expertise in other areas of physical oceanography should apply. An interest in interdisciplinary research and cooperation would be an asset. The appointment will include teaching duties at the graduate and undergraduate levels. Applications, including curriculum vitae and the names of three referees, or requests for information, should be addressed to:

Dr. D. H. Rendell, Head
Department of Physics
Memorial University of Newfoundland
St. John's Newfoundland, Canada A1B 3X7

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

THE UNIVERSITY OF WYOMING VICE PRESIDENT FOR RESEARCH AND GRADUATE STUDIES

The University of Wyoming invites applications for the position of Vice President for Research and Graduate Studies.

The University of Wyoming is an expanding university that encompasses a broad range of academic programs leading to bachelor's, master's, and doctoral degrees offered through eight colleges, the Graduate School, and a School of Extended Studies and Public Service.

The vice president for research and graduate studies reports to the president and participates with the president, vice president for academic affairs, and the vice president for finance in policy development and general management of the university.

The vice president for research has responsibility for administration of large interdisciplinary research institutes and programs, support and administration of the University's research and grants programs, the Graduate School of the University, the University's Computer Center, continued development of industrial support for the University's research endeavors, liaison with the Western Research Institute, and compliance with regulatory procedures relating to research.

Qualifications for the position include an earned doctorate, a record of outstanding achievement in research, demonstrated proficiency in graduate and undergraduate education, demonstrated academic leadership and administrative ability.

Nominations and applications will be received until 15 June 1985. Submit application letter, curriculum vitae, and the names and addresses of three references to:

Dr. Sam D. Hakes
Vice Presidential Search Committee
Box 3295 University Station
University of Wyoming
Laramie, Wyoming 82071

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FACULTY POSITIONS

Department of Physiology
and Biophysics
Mount Sinai School of Medicine
New York, NY 10029

The Department invites applications for several tenure track faculty positions. Applicants must have a vigorous research program with a history of extramural funding, or exhibit strong potential to attract such funding, and have an interest in teaching both medical and graduate students. Areas of specialization are unrestricted, but preference will be given to candidates working in experimental and/or theoretical aspects of cellular physiology, molecular biophysics and molecular endocrinology. Curriculum vitae including a statement of career and research goals, information on current research support, and names of references that can be contacted should be addressed to:

Search Committee Chairman
Department of Physiology and Biophysics
Mount Sinai School of Medicine
One Gustave L. Levy Place
New York, NY 10029

*The Mount Sinai School of Medicine
is an Equal Opportunity/Affirmative Action Employer.*



**The Mount Sinai
School of
Medicine**

POSTDOCTORAL APPOINTMENT LIFE SCIENCES

The Pathology Group at Los Alamos National Laboratory is looking for a postdoctoral fellow to participate in a collaborative project with the Division of Viral Diseases, Center for Infectious Diseases at the Federal Center for Disease Control (CDC) in Atlanta, Georgia.

Responsibilities

- The research will last for approximately two years and include developing rapid and highly sensitive physical and biochemical methods for identifying human viruses and other microbiological agents.
- Opportunities also exist for basic studies using biophysical methods for probing the physical organization within the virion of the genomes of several groups of viruses.

Education

Requirements for this appointment include:

- Ph.D. in virology, microbiology, biochemistry or allied discipline;
- excellent academic credentials;
- a strong background and interest in physical methods.

Benefits

- Postdoctoral appointments pay \$27,900 to \$29,376 per annum.
- Appointees receive employee benefits, travel, and moving expenses to Atlanta will be included.

Candidates no more than three years past their Ph.D. are invited to apply. Please send your resume, bibliography, three letters of reference and undergraduate and graduate transcripts to:

Sandra Harding, DIV 85-BU
Personnel Administration Division
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

University
of California



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Opportunity Employer**

POSITIONS OPEN

POSTDOCTORAL POSITION. Microbiologist GS-403-11 (not to exceed 2 years), open immediately at the U.S. Public Health Service, National Hansen's Disease Center, Carville, Louisiana, for project on immunology of leprosy and role of macrophages in resistance. U.S. citizenship required. Recent Ph.D. in immunology/microbiology desired. Preference to experience in macrophage metabolism, effector function, and lymphokine characterization. Salary: \$26,381 plus 25 percent per annum. Contact: Ms. Jeansonne, Personnel Office, Telephone: 504-642-7771, by 3 May for procedures in applying. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE. Research involves analysis of pathways of endocytosis of growth factors and other ligands using quantitative fluorescence techniques, especially flow cytometry and cell sorting. Experience in cell biology, membrane biochemistry, protein modification, or flow cytometry desirable. Available immediately. Send curriculum vitae and three references to: Dr. Robert F. Murphy, Department of Biological Sciences, Carnegie-Mellon University, 4400 Fifth Avenue, Pittsburgh, Pa. 15213.

POSTDOCTORAL TRAINING POSITION. The University of Pittsburgh School of Medicine has positions available in a NIH-funded training grant for research in the broad areas of heart and vascular disease and nutrition beginning 1 July 1985. For more information, candidates should send curriculum vitae to: Yvonne Harlow, M250 Scaife Hall, Pittsburgh, Pa. 15261. *An Affirmative Action/Equal Opportunity Institution.*

PRINCIPAL INVESTIGATOR— LIPID DISORDERS

Unique opportunity to join new Oregon research institute based in University-affiliated private teaching hospital. We seek M.D. (M.D., Ph.D. candidates welcome) to direct clinical and laboratory lipid research. Existing academic staff in diabetes and endocrinology. New spacious research facilities under construction. Competitive salary base in Department of Medical Education. Teaching responsibilities for internal medicine residents shared with four other faculty. Please send curriculum vitae (include publications), brief letter describing research interests, and names of three references to: David N. Gilbert, M.D., Director of Chiles Research Institute, Providence Medical Center, 4805 Northeast Glisan, Portland, Oregon 97213.

PRINCIPAL INVESTIGATOR— MOLECULAR ONCOLOGY

Unique opportunity to join new Oregon research institute based in University-affiliated private teaching hospital. We seek M.D. (M.D., Ph.D. candidates welcome) to direct clinical and laboratory oncology research. Existing cancer-immunology research laboratory, large clinical oncology nursing unit, nurse cancer coordinator. Desire investigator with interest in oncogenes and other facets of molecular biology. New spacious laboratory facilities under construction. Competitive salary base. Teaching opportunities. Interested individuals please send curriculum vitae (include publications), brief letter describing research interests, and names of three references to: David N. Gilbert, M.D., Director of Chiles Research Institute, Providence Medical Center, 4805 Northeast Glisan, Portland, Oregon 97213.

RESEARCH ASSOCIATE. Study protein-nucleic acid interactions using NMR spectroscopy and other physical methods. Candidates should have a Ph.D. degree and a strong research background in sequencing and chemical synthesis of native and modified nucleic acids, biochemical properties of restriction enzymes, UV, ORD-CD spectroscopy, and conformational analysis of peptides and nucleic acids using NMR spectroscopy. Salary: \$18,000 per year. Mail résumé to: Professor H. O. Smith, Department of Molecular Biology and Genetics, Johns Hopkins University (JHU) School of Medicine, Baltimore, Md. 21205. *JHU is an Equal Opportunity Employer.*

RESEARCH ASSOCIATE position available to study biochemical mechanism of emphysema. Qualified applicants must have Ph.D. in biochemistry for this nontenure track. Must have broad experience in chemical and enzymatic protein modification, tissue culture, and animal models of tissue injury. Minimum salary: \$19,000. Forward résumé to:

John R. Hoidal, Department of Medicine
University of Tennessee Center for Health Sciences
956 Court, Coleman Building, 3H29
Memphis, Tennessee 38163

POSITIONS OPEN

POSITION: PROFESSOR OF NEUROSCIENCES AND EDUCATION in an Interdisciplinary Program within the Department of Human Development, Cognition, and Learning.

Level: Associate professor or advanced assistant professor with an earned doctorate degree. Salary would be competitive and commensurate with qualifications.

Background: Joint specialization in the behavioral neurosciences and in a subdiscipline in education or psychology. Ability to bridge basic research in neurosciences with educational/clinical practice. Research interest in relating neuroscience concepts with educational and clinical concepts. Ability to supervise students in educational and clinical contexts.

Duties: Provide leadership in the development of the predoctoral Ed.M. Program in Neurosciences and Education; teach courses; and guidance to predoctoral and doctoral students specializing in the area.

Starting date: September 1985

Contact: Send curriculum vitae, letters of recommendation, and reprints to: Edward D. Mysak, Ph.D., Chairman, Search Committee, Teachers College, Columbia University, Box 160, New York, New York 10027.

Teachers College is an Equal Opportunity Employer.

DEPARTMENT OF BIOLOGY YORK UNIVERSITY

Applications are invited, subject to final University approval, for a tenure-track position as **FULL PROFESSOR IN POPULATION BIOLOGY**. Preference will be given to applicants who qualify for the chairmanship of the department. Applicants must be established scientists with an established program of research in some area of population biology and will be expected to provide leadership to the population biology group in the department. *In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens or permanent residents.* Applications, including curriculum vitae, recent reprints, and names of at least three referees should reach: Professor A. S. M. Saleuddin, Chairman, Department of Biology, York University, 4700 Keele Street, 246 Farquharson Building, North York, Ontario, Canada M3J 1P3.

The NASA/Goddard Space Flight Center is seeking a **PROJECT SCIENTIST** for the Solar Optical Telescope. Salary range: \$44,430 to \$67,940, depending on qualifications and experience. All candidates must possess professional experience or graduate education in an appropriate field of physics, astronomy, engineering, or mathematics with documented experience in research, including publications in scientific, technical journals. Candidate must have ability to resolve issues between science and management and be of sufficient stature to speak authoritatively for the scientific program of the Solar Optical Telescope. Candidates should submit an SF-171 (application for federal employment) and a list of publications by 24 April 1985 to: Beverly A. Pair, NASA/Goddard Space Flight Center, Personnel Division, Code 225-J, Greenbelt, Md. 20771; telephone: 301-344-7622. *U.S. citizenship is required. Equal Opportunity Employer.*

PROTEIN KINASE/ ENZYME BIOCHEMIST

Available immediately for Ph.D. level postdoctoral research associates to study protein kinase and mechanism of actions of growth factors. Experience in cell culture and enzyme purification desirable. Send curriculum vitae and names of references to: Dr. James Tam, Box 294, The Rockefeller University, 1230 York Avenue, New York, N.Y. 10021. *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSISTANT PROFESSOR (PHYSICS) in the field of condensed matter physics (material science) will be applying the theoretical principles of advanced physics and mathematics to conduct theoretical research on the theory of fractional quantized Hall effect, an important new physical phenomenon found in semiconductor heterostructure, and localization of disordered systems with functional integration method. Perform analytical research, carry numerical calculations with computers, develop a unified theory, and explore the odd-denominator rule, temperature and impurity effect. Minimum requirements: Ph.D. in theory of condensed matter physics and 1 year of postdoctoral research experience. Salary: \$1,750 per month. Job in Los Angeles. Send résumé to: Box 79, SCIENCE.

POSITIONS OPEN

REPRODUCTIVE BIOLOGIST

Tenure-track research position in the Department of Obstetrics and Gynecology for an investigator with a Ph.D. in biochemistry, physiology, or associated discipline; a minimum of 2 years of postdoctoral experience; and demonstrated expertise in areas of ovarian follicular development, corpus luteum function, or oocyte culture.

Applicants must have collaborative research experience and be able to train clinical endocrine fellows. Salary and rank are open. *Women and minorities are encouraged to apply and identify themselves.* Curriculum vitae may be sent to:

Mary Hammond, M.D.
Director of Reproductive Endocrinology
Department of Obstetrics and Gynecology
4012 Old Clinic Building (226H)
University of North Carolina
School of Medicine
Chapel Hill, N.C. 27514

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

RESEARCH ASSISTANT PROFESSOR OF PHYSIOLOGY to conduct research on inositol lipid metabolism in smooth muscle. Ph.D. in biochemistry and 4 years of postdoctoral experience required. Strong background in lipid analytical techniques, study of inositol lipids, subcellular fractionation, experience in working with smooth muscle inositol lipid metabolism. Send curriculum vitae and three letters of recommendation to: Dr. Ronald F. Coburn, Department of Physiology, University of Pennsylvania School of Medicine, Philadelphia, Pa. 19104. Deadline for application 19 April 1985. *Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSISTANT PROFESSORSHIP

For a Ph.D. biochemist to work on the structure and function of cartilage collagens, including their mechanisms of cross-linking, and to develop a program in skeletal tissue research. At least 3 years of relevant research experience is essential. Apply, naming four referees, to:

Diana Rutledge, Administrator
Department of Orthopaedic Surgery
University of Washington
School of Medicine, RK-10
Seattle, Washington 98195

The University of Washington is an Affirmative Action Employer.

RESEARCH ASSOCIATE, INSTRUCTOR, OR RESEARCH ASSISTANT PROFESSOR to study the in vivo pharmacology of the cerebral microcirculation or the arachidonic acid cascade in the nervous or cardiovascular systems. Doctorate and good record of research productivity required. This individual, working under the supervision of Dr. Earl Ellis, will contribute to ongoing studies and be encouraged to pursue related, independent studies. In vivo microcirculation, HPLC, and GC/MS facilities available. Salary based on qualifications. Send curriculum vitae, reprints, and names of three references to: Dr. Louis S. Harris, Chairman, Department of Pharmacology and Toxicology, Box 613, Medical College of Virginia, Virginia Commonwealth University, Richmond, Virginia 23298-0001, by 15 June 1985. *An Equal Opportunity/Affirmative Action Employer.*

TWO RESEARCH ASSOCIATE POSITIONS

Available immediately for a minimum of 2½ years in a newly established research group studying the molecular aspects of malaria parasites. One project involves the cloning and expression of malaria genes. Applicants should have postdoctoral experience in recombinant DNA techniques. The second project is focused on the isolation and characterization of enzymes involved in the drug resistance of the parasites and requires a strong background in protein chemistry/enzymology. Salary range: U.S. \$23,000 to \$27,000. Send curriculum vitae to: Dr. J. Werner Zolg, Department of Molecular Biology, Biomedical Research Institute, 12111 Parklawn Drive, Rockville, Maryland 20852.

RESEARCH DIRECTOR. Ph.D. with background in cellular immunology and/or collagen metabolism. To initiate and direct a research program of immunologic events at the onset of type I diabetes and/or increased collagen cross-linkage in diabetes. Will have academic appointment at University of California at Irvine; \$32,000 for first year. Send curriculum vitae and three references to: Dr. Bruce Buckingham, 1109 West La Veta Avenue, Orange, Calif. 92668. *An Affirmative Action/Equal Opportunity Employer.*



UNIVERSITY OF CAPE TOWN

Fitzpatrick Institute

RESEARCH OFFICER

The Fitzpatrick Institute has a vacancy for a Research Officer who will undertake individual and co-operative research with an ornithological bias and assist with the supervision of honours, M.Sc. and Ph.D. students. The post is guaranteed until the end of 1989 but is reviewed periodically and may become effectively permanent.

Qualifications: Minimum Ph.D. with a high-quality publication record and teaching experience. Preference will be given to candidates with a sound knowledge of botany and/or with training and experience in biostatistics and/or mathematical modelling. Salary range: R17 267–R22 400 per annum with an annual bonus of nearly one month's salary and attractive staff benefits.

RESEARCH STUDENTSHIPS

A limited number of M.Sc., Ph.D. and/or post doctoral studentships are also available. These are earmarked preferentially for projects involving vertebrate (preferably birds)/plant interactions and/or mathematical modelling or multivariate statistical analysis of plants or vertebrates.

M.Sc. funding level—R7 000 per annum

Ph.D. funding level—R10 000 per annum

Post-doctoral funding level—R15 000 per annum.

Post-doctoral posts are limited to two years. Potential M.Sc. and Ph.D. students should apply as soon as possible, since UCT's deadline for registration is 1 May.

Applicants should submit a full curriculum vitae and the names and addresses of three referees not later than 30 May 1985 to the Registrar, (Attention: Appointments Office), University of Cape Town, Private Bag, Rondebosch, 7700, South Africa. Further information may be obtained from the Registrar or The Secretary, SA Universities Office, Chichester House, 278 High Holborn, London WC1V 7HE.

The University's policy is not to discriminate on the grounds of sex, race or religion.

Further information on the implementation is obtainable on request.

RESEARCH CENTER DIRECTOR

Applications and nominations are invited for a Director, Center for Atmospheric and Biospheric Effects of Combustion, located in the Applied Science Division. The scope of the Center is interdisciplinary and includes four major areas: Combustion and Abatement, Atmospheric Pathways and Chemistry, Radiative Balance, and Ecosystem Pathways and Effects. The Director will coordinate the efforts of a number of scientists, including chemists, physicists, engineers, biologists, geologists, meteorologists, and energy analysts to carry out the objectives of the Center; will be responsible for obtaining research support from governmental and non-governmental organizations; will represent the Laboratory at various related national and international meetings; and will also carry out research within the Center. This position requires a Ph.D., and a record of distinguished leadership, outstanding research accomplishments and an international reputation in one or more of the above areas. Experience and background in program planning, development, implementation, administration and evaluation is required. The incumbent should also have experience in obtaining research funds and have a familiarity with organizations that provide these research funds. Salary will be negotiable. The successful candidate will be appointed a Senior Staff Scientist at the Lawrence Berkeley Laboratory. Applications and/or nominations should be forwarded to: Lawrence Berkeley Laboratory, One Cyclotron Road, Employment Office 90-1042, Berkeley, CA 94720. Please specify Job #A/3330. An Equal Opportunity Employer M/F/H.



LAWRENCE
BERKELEY
LABORATORY

Senior Staff Fellow (Ph.D.)
Salary Range — \$20,688 to \$39,960
(3-7 years Research Experience)

NATIONAL INSTITUTES OF HEALTH NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES LABORATORY OF BEHAVIORAL AND NEUROLOGICAL TOXICOLOGY

The Membrane Physiology Section is seeking a neurophysiologist/neurotoxicologist to work in the area of *in vivo* and *in vitro* analysis of electrophysiological events. The successful candidate will be experienced in carrying out voltage clamp, single-channel current recording and electrical noise analyses, iontophoresis procedures, brain slide techniques and field potential analysis. The candidate must have a record of demonstrated research productivity and ability to carry out independent as well as collaborative research. The initial appointment is for two years, with additional extension possible. Salary commensurate with candidates qualifications and experience. Send Curriculum Vitae, bibliography and three recommendation letters to:

Mr. Bruce Wiggins, Code: HN-V27
NIEHS Personnel Office
P.O. Box 12233 (MD1-01),
Research Triangle Park, NC 27709
(919) 541-3317

NIH is an Equal Opportunity Employer

DIRECTOR, UNIVERSITY OF CALIFORNIA CONSORTIUM ON MEXICO AND THE UNITED STATES, AND TENURED FACULTY APPOINTMENT

Nominations and applications are invited for the position of **director** of the University of California Consortium on Mexico and the United States (UC MEXUS), a nine-campus organized research program which supports and coordinates UC activities in the areas of (i) Mexican studies, (ii) United States-Mexican relations, (iii) Chicano studies, and (iv) collaborative research between UC and Mexican scholars in the humanities, social sciences, biological sciences, physical sciences, and agricultural sciences. It is expected that the Consortium will eventually become a formally recognized Multi-Campus Research Unit (MRU) of the University of California. The director is the chief academic and administrative officer of the program with full executive and financial responsibility for its administration. The director shall report to the president of the University through the chancellor of the Riverside campus, where the Consortium is headquartered. The position is accompanied by a tenured appointment in an academic department appropriate to the final candidate's qualifications.

Qualifications: Candidates should demonstrate distinguished scholarly achievement in a field of interest to UC MEXUS and must be eligible for a tenured, full-time faculty appointment in the University of California. In addition, candidates should possess proven administrative ability and experience in obtaining grants, raising funds, and program development. The ability to interact effectively with a wide variety of faculty and administrative personnel, fluency in Spanish and English, and direct knowledge of Mexico and its institutions are also required.

Application procedure: Applicants should submit their curriculum vitae and other pertinent materials to: **Professor Rodolfo Ruibal, Chair, Search Committee, UC MEXUS, University of California, Riverside, Calif. 92521.**

Deadline: To ensure consideration, submit materials by 10 May 1985.

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

POSITIONS OPEN

PROFESSOR OF BIOCHEMISTRY UNIVERSITY OF GENEVA FACULTY OF SCIENCES

Full-time appointment. The successful candidate is expected to teach at undergraduate and graduate levels and to lead a strong research program. Teaching in French is required but a period of adjustment can be granted. Applications should be sent by 17 May 1985 to: **Secrétariat de la Faculté des Sciences, Université de Genève, 20 quai Ernest Ansermet, CH-1211 Geneva 4, Switzerland**, where inquiries also can be sent.

RESEARCH ASSOCIATE IN PLANT TISSUE CULTURE. Two positions available requiring a Ph.D., or a master's with at least 2 years of postgraduate experience in plant tissue culture. One position involves the study of efficient stress selection systems for cereal tissue cultures and media conditioning by plant tissue culture. The second position involves development of techniques for callus culture of legumes emphasizing regeneration systems. Application deadline: 30 April 1985 (may be extended if no suitable applicant is found). Position available 1 June 1985, negotiable. Salary commensurate with qualifications. Send curriculum vitae and three letters of recommendation to:

**Dr. Murray W. Nabors, Director
Tissue Culture for Crops Project
Department of Botany
Colorado State University
Fort Collins, Colo. 80523**

RESEARCH ASSOCIATE/PLANT TISSUE CULTURE. The Tissue Culture for Crops Project (TCCP) at Colorado State University is seeking a **training coordinator** to develop and administer a plant tissue culture training program. The training will be directed at scientists/technicians from developing countries who wish to learn diverse tissue culture techniques. Applicants should possess an M.S. or Ph.D. and have at least two years of tissue culture experience. Experience in administration of training programs desirable. Application deadline: 30 April 1985 (may be extended if no suitable applicant is found). Position available 1 June 1985, negotiable. Salary commensurate with qualifications. Send curriculum vitae and three letters of recommendation to:

**Dr. Murray W. Nabors, Director
Tissue Culture for Crops Project
Department of Botany
Colorado State University
Ft. Collins, Colo. 80523**

RETROVIROLOGY POSITION AVAILABLE. The Department of Infectious Diseases and Microbiology of the Graduate School of Public Health, University of Pittsburgh, is requesting applications for faculty appointment at the rank of assistant or associate professor with dual appointment in the new Cancer Center of the University of Pittsburgh. The candidate should have a Ph.D. or M.D. degree with demonstrated leadership in research and teaching. The appointee will conduct an independent research program on human T lymphotropic virus type III (HTLV-III) and be responsible for direction of a major research laboratory performing isolation and characterization of HTLV-III from clinical specimens. This activity is part of a large NIH-supported epidemiological study of the gay population of Pittsburgh. The position is available immediately. Submit curriculum vitae and references to: **Dr. Charles Rinaldo, A417 Crabtree Hall, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, Pa. 15261. Telephone: 412-624-3928. The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.**

The Department of Urology at the College of Physicians and Surgeons of Columbia University has a position available for a **SENIOR INVESTIGATOR** in male reproductive science. Applicant should be eligible for associate or full professor candidacy and be an experienced independent investigator, preferably in aspects of spermatogenesis. This position will be a joint faculty appointment in the Department of Urology and an appropriate basic science department. Send curriculum vitae to: **Department of Urology, Box 44, College of Physicians and Surgeons of Columbia University, 630 West 168 Street, New York, N.Y. 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

RESEARCH ASSOCIATE POSITION available in **NUTRITIONAL SCIENCES.** Applicants should have a Ph.D. in nutritional sciences, less than 2 years of postdoctoral experience, a proven research record in animal feeding behavior, the effects of diet on neurotransmitter metabolism and receptor binding, and be capable of directing and coordinating an ongoing research programme. Apply to: **Dr. G. Harvey Anderson, Chairman, Department of Nutritional Sciences, FitzGerald Building, University of Toronto, Toronto, Ontario, Canada M5S 1A8.** Closing date: 19 April 1985. *In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.*

A RESEARCH FACULTY APPOINTMENT (associate or assistant professor) is available in the Section of Experimental Oncology at the University of Utah. The position involves collaboration with the faculty studying tumor biology and investigating the biological effects of therapeutic agents (hyperthermia, ionizing irradiation, and anticancer drugs) at the molecular, cellular, and whole-animal levels as well as conducting human clinical trials on the interactions of hyperthermia and X-irradiation. The successful applicant will have demonstrated experience with such agents in molecular studies, in vitro mammalian cell models, or in vitro/in vivo animal tumor models. Experience with flow cytometry and/or centrifugal elutriation is also desirable. The candidate is expected to either have or acquire partial independent research support which will complement the current interests of the multidisciplinary faculty. Applicants should send curriculum vitae and the names and addresses of three references by 1 June 1985 to: **Dr. Lyle A. Dethlefsen, Section of Experimental Oncology, Department of Radiology, University of Utah Medical Center, Salt Lake City, Utah 84132.** Applications received after the deadline may be accepted if no qualified candidate has been nominated.

An Equal Opportunity/Affirmative Action Employer

The Laboratory of Eukaryotic Gene Expression in the Basic Research Program at the National Cancer Institute-Frederick Cancer Research Facility is seeking to fill the following positions:

SENIOR STAFF SCIENTIST. Ph.D. plus additional research experience required to organize an independent program of research in molecular genetics and gene regulation. Particular preference will be given candidates in the areas of control of development, cell biology, and genome rearrangements. The position includes space and complete funding for a research section.

POSTDOCTORAL FELLOW. Ph.D. required to conduct original research on the biochemistry and genetics of site-specific and generalized recombination in yeast. This will include attempts to identify recombination intermediates and to define the pathways and functions involved in recombination and gene conversion. Homothallic switching in yeast is one model system currently in use in the laboratory. More senior candidates may qualify for a **scientist associate** position.

Submit curriculum vitae and list of references to:

**Dr. Jeffrey Strathern, Director
Laboratory of Eukaryotic Gene Expression
NCI-Frederick Cancer Research Facility
P.O. Box B, Building 539
Frederick, Maryland 21701**

An Equal Opportunity/Affirmative Action Employer

TECHNICAL ASSISTANT for research in the areas of aquaculture with fish plankton systems, cyanobacteria culture, atomic absorption, plankton population studies. Oversee and supervise student laboratory projects. Minimum: M.S. degree or B.S. degree (science, biology, or medical technology) and equivalent post-degree credits, 40-hour week/\$16,300 per academic year. Send résumé to: **Dr. Judith Bender, Department of Biology, Morehouse College, 223 Chestnut Street, Atlanta, Ga. 30314. An Equal Opportunity/Affirmative Action Employer.**

Department of VISUAL SCIENCES, School of Optometry, Indiana University, Bloomington, Indiana 47405, anticipates another faculty position for a junior or outstanding senior-level vision researcher in any area (save electrophysiology, where we are already strong). Respondents to our other recent ads need not reapply. *Indiana University is an Equal Opportunity Employer.* Send curriculum vitae and three reference letters by 15 May to: **Dr. S. Lee Guth.**

POSITIONS OPEN

TOXICOLOGY CHIEF. The Connecticut Department of Health Services, Laboratory Division, is seeking qualified applicants for chief toxicologist. Candidates are required to have a doctorate and 6 years of experience, 2 years of which must have been in forensic toxicology. Skills needed for examination of drugs, body fluids, and physical evidence are essential, including the use of modern instrumentation. The successful candidate will plan, organize, and supervise the work of 27 professionals and 12 support personnel. Salary range is \$42,350 to \$51,987. This may be negotiable. Send résumé and salary requirements to: **Personnel Administrator, Connecticut Department of Health Services, 150 Washington Street, Hartford, Connecticut 06106. An Affirmative Action Employer.**

WILDLIFE COMMUNITY ECOLOGIST. Potential position. Ph.D. required in wildlife ecology or closely related field with quantitative expertise in community ecology and habitat analysis. Teaching will involve three courses per year selected from mammalogy, wildlife management, vertebrate histology, grassland ecology, or a section of introductory biology. Remaining duties will involve research and graduate student supervision. A letter of transmittal describing teaching interest, evidence of research productivity, copies of recent publications, and names of at least three references should be sent to: **Dr. Larry Talent, Oklahoma State University, Zoology Department, 430 LSW, Stillwater, Okla. 74078,** prior to 19 April. *An Equal Opportunity/Affirmative Action Employer.*

REQUEST FOR PROPOSALS

REQUEST FOR PROPOSALS

The Lighting Research Institute, Inc., a not-for-profit organization formed to promote and sponsor basic and applied research and development in North America for all forms of lighting is making its annual request for proposals based on its research agenda. Proposals are being sought for the following research areas with emphasis on those areas which have direct human application:

Photobiology; Vision; Systems Application (Engineering, Physical Sciences, and Economic Research in Lighting Systems); Psychology; and other targeted research topics (that is, effects of lighting on productivity, V.D.T., and so forth).

The deadline for receipt of proposals is **15 July 1985.** For a copy of the Institute's Research Agenda, Proposal Application, and list of targeted research topics, please contact:

**Richard L. Vincent
Program Manager
Lighting Research Institute
345 East 47 Street
New York, N.Y. 10017
Telephone: 212-705-7918**

MEETING

ARGENTINE SCIENCE—A MEETING to discuss programs to support scientific work in Argentina will take place during the meetings of the Federation of American Societies for Experimental Biology (FASEB) on Tuesday, 23 April 1985 at 5 p.m. in the Garden Grove Room 3 of the Anaheim Convention Center in Anaheim, California. All those interested are welcome to participate. Further information: **Argentine American Association for the Advancement of Science, Technology and Culture, 210 Fifth Avenue, Suite 1102, New York, N.Y. 10010, telephone: 212-340-5436.**

SYMPOSIUM

First International Symposium on Cellular Endocrinology, "From Embryos to Cells: Hormonal Control of Differentiation," 12 to 16 August 1985, Lake Placid, New York. Sponsored by the W. Alton Jones Cell Science Center, Inc. Symposium co-chairmen: Drs. Gordon H. Sato, Ginette Serrero, and Jun Hayashi. Symposium will include lectures and afternoon poster sessions. For further information and registration forms, please call: **Carla Cheyne, Symposium Secretary, telephone: 518-523-1250.**

Sr. Scientist: Pharmaceutical/Rheumatology

**Help Us Help Others
To Lead Healthier Lives**

CIBA-GEIGY, a multibillion dollar, multinational corporation, has made a commitment to research unparalleled by any other chemical company in the world. We currently have a unique opportunity for an individual in the Rheumatology Division of our corporate headquarters located in Westchester County, New York.

We seek a qualified candidate to establish and use in vivo models for the identification of compounds affecting the components of connective tissue matrices; assess the physicochemical and biochemical status and performance of connective tissue under normal and diseased states; supervise and direct a laboratory having these functions.

To qualify, you must possess a Ph.D. in Molecular Biology or equivalent and have a minimum of 3-5 years' postdoctoral experience in the field of biology of connective tissue matrices, including experience in tissue culture techniques and the pathology of connective tissue diseases.

We offer a competitive salary, excellent benefits and comprehensive relocation package in an area of the industry that will enhance your personal and professional growth. This position offers the opportunity for you to work with some of the most innovative specialists in the field. For immediate consideration, forward your resume including salary history in confidence to: Ms. S. Santora, CIBA-GEIGY Corporation, 444 Saw Mill River Road, Ardsley, NY 10502. An Equal Opportunity Employer m/f/h/v.

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HEALTH SCIENTISTS AND TOXICOLOGISTS

ENVIRON is a fast-growing, multi-disciplinary health and environmental science consulting firm with its headquarters in Washington, D.C. and an office in Princeton, N.J. We are seeking qualified candidates to serve our expanding base of private and public sector clients as follows:

• **HEALTH SCIENTISTS/TOXICOLOGISTS** with experience in chemical risk assessments and preferably experience with scientific regulatory issues.

Successful candidates should have an M.S./Ph.D., at least 5 years experience, and possess strong analytical and communication skills. Prior consulting or project management experience desirable.

Other positions requiring less experience exist for health scientists and toxicologists with expertise in the above areas.

ENVIRON offers competitive salaries and excellent benefits. Equal opportunity employer, M/F. Send resume and salary requirements to Personnel, Dept. No. 285, ENVIRON Corporation, The Flour Mill, 1000 Potomac Street, N.W., Washington, D.C. 20007.

ENVIRON

Counsel in Health and Environmental Science

SCIENCE JOURNALIST

The Research News staff of *Science* has an opening for a writer specializing in coverage of neurobiology, cognitive psychology, and behavior, as well as research in the social sciences.

Regular reporting of developments in these areas requires substantial familiarity with the literature, attendance at scientific meetings, and the ability to establish contacts with leading researchers.

The successful candidate is probably currently doing pre- or postdoctoral research in one of these fields. Experience in journalism is not absolutely required, but a demonstrable ability to write clear, interesting, and understandable articles for a broad scientific audience is essential.

We regret we cannot accept telephone inquiries.

Applicants should submit a résumé, not more than three writing samples, and a letter of interest to:

Carolyn Bell
Personnel Manager
SCIENCE
1515 MASSACHUSETTS AVENUE, NW
Washington, D.C. 20005
Equal Opportunity Employer

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• Whenever you write us about your membership or subscription, please attach a Science address label to ensure prompt service.

• **Mail to:** Membership and Subscription Records, AAAS, 1515 Massachusetts Ave., NW, Washington, D.C. 20005.

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☐ \$121 air-surface delivery via Holland

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☐ \$158 air-surface delivery via Holland

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TRAVEL FUNDS

TRAVEL FUNDS. The Society of Protozoologists is seeking applications from Society members for travel funds to the VII International Congress of Protozoology, Nairobi, Kenya, 22 to 29 June 1985. Funds are contingent upon an NSF application for funds and Society review. Write: **J. J. Paulin, Secretary, Department of Zoology, University of Georgia, Athens, Ga. 30602; telephone: 404-542-4080.**

COURSES

INTENSIVE FREEZE-FRACTURE COURSE for research scientists and technicians, 22 to 26 July 1985. Limited to 12 students. Instructors are Drs. John E. Rash, Russell L. Steere, Timothy Johnson, L. Andrew Stachelin, and Caroline N. Schooley. Balzers, Denton, Polaron, and Reichert freeze-etch and rapid-freeze equipment; Philips 400T TEM/STEM. Tuition of \$895 includes hotel, continental breakfasts, luncheons, textbook, and all necessary materials. Contact: **Eileen Banks, Department of Anatomy, Colorado State University, Fort Collins, Colo. 80523, telephone 303-491-5847. Registration closes 1 June 1985.**

COLLOQUIUM

COLLOQUIUM
THE NEW YORK ACADEMY OF SCIENCES
Third Colloquium in
Biological Sciences
CELLULAR SIGNAL TRANSDUCTION
Vista International Hotel, New York City
4 November 1985
CALL FOR ABSTRACTS

This 1-day colloquium will feature six invited speakers eminent in the field of biological sciences. An important aspect of the meeting will be posters presented by members of the Academy. **Topics for the posters may be in any of the areas of the biological sciences (biochemistry, biological sciences, biomedical sciences, biophysics, or microbiology).** Members are cordially invited to submit abstracts to the Organizing Committee of the Colloquium for consideration. Members may also sponsor presentations by non-members. Those whose abstracts are accepted will be invited to display their posters and to submit a short manuscript. After review, a selected number of these short manuscripts, as well as those of the invited speakers, will be published as a volume of the *Annals of the New York Academy of Sciences*. Completed abstract forms are due 1 July.

Speakers: Jeffery Barker, NIH; Michael J. Beridge, Cambridge University; John C. Cambier, University of Colorado Health Science Center; A. J. Hudspeth, University of California at San Francisco; Paul Liebman, University of Pennsylvania School of Medicine; and Rodolfo R. Llinás, New York University Medical Center.

For abstract forms, program and registration information, write to:

Conference Department
The New York Academy of Sciences
2 East 63 Street
New York, N.Y. 10021

PROGRAMS

POSTDOCTORAL TRAINING PROGRAM

Postdoctoral positions are available beginning 1 July 1985 in our NIH-supported research training program in microbiology and immunology. Applicants should have a Ph.D., M.D., D.V.M., or equivalent degree. Areas of research include microbial physiology, mycology, pathogenesis, ultrastructure, virology, molecular biology, microbial genetics, cellular and molecular immunology, and infectious diseases. Preference will be given to those interested in interdisciplinary research training. A separately funded option in clinical laboratory microbiology consonant with and applicable towards eligibility for certification in medical laboratory microbiology by the American Board of Medical Microbiology may be available. Funded predoctoral positions are also available. Candidates must be U.S. citizens or permanent residents. Please address letters of inquiry and applications (consisting of curriculum vitae and the names of at least three references) to: **Chairman, Department of Microbiology and Immunology, Temple University School of Medicine, Philadelphia, Pa. 19140. Temple University is an Affirmative Action/Equal Opportunity Employer.**

PROGRAMS

POSTDOCTORAL AND PREDOCTORAL TRAINING PROGRAM IN INFECTION AND IMMUNITY. This NIAID-supported program provides training for careers in research and teaching in the biochemistry and molecular genetics of the pathogenesis of infectious disease. Applicants must be citizens or permanent residents of the United States. Postdoctoral candidates should send résumé and the names of three references. Preference will be given to predoctoral applicants with an M.S. degree or equivalent in related fields. Predoctoral applicants should apply to the Graduate School of Arts and Science, Emory University. Postdoctoral applicants should write to:

Dr. John K. Spitznagel
Professor and Chairman
Department of Microbiology and Immunology
502 Woodruff Memorial Building
Emory University School of Medicine
Atlanta, Georgia 30322

Emory University is an Equal Opportunity Employer.

CONFERENCE

The New York Academy of Sciences
Conference on
PSYCHOBIOLOGY OF SUICIDAL BEHAVIOR
18 to 20 September 1985
Barbizon-Plaza Hotel, New York City

With the mounting incidence of suicide, particularly amongst younger people, and the confluence of findings using a variety of research strategies suggesting relatively specific biochemical correlates with suicide, a scientific conference dedicated to research in this area is very timely. This conference is of theoretical and practical importance; its program combines clinical and psychobiological aspects; its goal is to be both heuristic and of immediate therapeutic relevance.

Chairs: **J. John Mann, M.D.,** Payne Whitney Clinic, 525 East 68 Street, New York, N.Y. 10021, and **Michael Stanley, Ph.D.,** Wayne State University, Lafayette Clinic, 951 East Lafayette, Detroit, Mich. 48207.

Inquiries should be addressed to: **Ellen Marks, Conference Department, The New York Academy of Sciences, 2 East 63 Street, New York, N.Y. 10021.**

FELLOWSHIPS

PRE- AND POSTDOCTORAL FELLOWSHIPS

Pre- and postdoctoral fellowships, supported by a National Institute of Drug Abuse Training Grant, are immediately available for fundamental research in drug abuse. Areas include behavioral, biochemical, clinical, and molecular pharmacology. Drug groups include narcotics, cocaine, nicotine, solvents, minor tranquilizers, and hallucinogens.

Predocctoral students may elect majors in Chemistry, Center for Brain Research, Pharmacology, Psychology, or Toxicology, and should, when inquiring, indicate the department of interest. Inquiries should be directed to: **Dr. M. W. Anders, Department of Pharmacology, University of Rochester School of Medicine and Dentistry, 601 Elmwood Avenue, Rochester, N.Y. 14642.**

The University of Rochester is an Equal Opportunity Employer, and inquiries from women and minorities are encouraged.

POSTDOCTORAL FELLOWSHIPS UNIVERSITY OF VIRGINIA DIVISION OF EXPERIMENTAL PATHOLOGY

POSTDOCTORAL POSITIONS available for study in the following areas: tumor amylase gene expression; vitamin D dependent calcium binding protein regulation; renal adrenergic system and hypertension; antiviral chemotherapy; high-resolution GC/MS of prostaglandins; autoimmune diseases; cell biology and neurochemistry of CNS embryonal tumor differentiation; aluminum toxicology; cell biology of intracellular protozoa; biophysical approaches to immunohematology and membrane immunobiology; membrane ultrastructure using the freeze-etch technique; and glycolipids as cell surface markers. Available immediately. For information, write to: **Dr. William W. Young, University of Virginia, Department of Pathology, Box 214, Charlottesville, Va. 22908. An Equal Opportunity/Affirmative Action Employer.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP in biochemical and clinical pharmacology. Studies will focus on daunorubicin metabolism and mechanisms of resistance to anthracyclines in human myeloid cell lines. Research experience in biochemistry, enzymology, tissue culture, development of resistance and protein purification is required. Submit application with curriculum vitae, research interest, and names of three references to: **Dr. Nahed Ahmed, Assistant Member, St. Jude Children's Research Hospital, P.O. Box 318, Memphis, Tenn. 38101. An Equal Opportunity/Affirmative Action Employer.**

CELLULAR AND MOLECULAR ASPECTS OF AGING

Postdoctoral fellowship supported by the National Institute on Aging available (U.S. citizen or resident status required). Program provides a brief circulation through laboratories of cooperating institutions. An intense research apprenticeship, seminars, and limited support for attendance at scientific events. One year appointment extended to 2 years. Send résumé and three letters of recommendation to: **Arthur G. Schwartz, Ph.D., Institute on Aging, 083-40, Temple University, Philadelphia, Pa. 19122. Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIPS. Applications are invited from candidates with an M.D., Ph.D., or equivalent degree to work on biochemical aspects of the structure, functions, and regulation of gonadotropin receptors. Two postdoctoral positions are open; one senior (three-plus years of experience) and one junior (recent graduate). Applicants should send curriculum vitae and three letters of recommendation to: **Dr. Mario Ascoli, Center for Biomedical Research, The Population Council, 1230 York Avenue, New York, New York 10021.**

1985-1986 L. S. B. LEAKEY FOUNDATION RESEARCH FELLOWSHIP FIELD STUDIES OF THE GREAT APES

The fellowship will be awarded to an individual to facilitate the establishment of a long-term research project on a wild population of great apes. Preference will be given to studies with significance for understanding human origins and to those which explore the causes of variation in ape behavior, particularly in previously unstudied habitats. The fellowship, worth up to \$20,000, is for field expenses only. Applicants should submit curriculum vitae and a one-page statement of research goals by 1 May 1985 to: **The L. S. B. Leakey Foundation, Attention: Kathleen F. Galvin, Grants Officer, Foundation Center, Pasadena, Calif. 91125. Eligible candidates will be asked to provide further details by 15 June 1985. The recipient will be announced in October 1985.**

POSTDOCTORAL FELLOWSHIP in "perinatal biology." Applicants with M.D. or Ph.D. for 2 to 3 years of training in perinatal research. Openings for 1985. Support for basic research in established laboratories. Endocrine, molecular biology, physiology in an organized program focusing on maternal and fetal perinatal adaptation. Salary and benefits depending on experience. Address to: **Jeffrey Whitsett, M.D., Co-director, "Training in Perinatal Biology" University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, Ohio 45267-0541. Equal Opportunity/Affirmative Action Employer.**

THE HEBREW UNIVERSITY OF JERUSALEM POSTDOCTORAL FELLOWSHIPS

Postdoctoral fellowship available for Ph.D.'s wishing to pursue research in marine biology, geology, chemistry, or physics. The position is available for 1 year with an option for extension for an additional year. Applications, including curriculum vitae and three separately sent letters of recommendation, should be sent no later than 15 May 1985 to: **The Scientific Director, The Interuniversity Institute of Eilat, P.O. Box 469, Eilat, ISRAEL.**

POSTDOCTORAL FELLOWSHIP IN BIOMATHEMATICS. A special 1-year postdoctoral fellowship is available for investigators interested in studying DNA function by combining thermodynamic properties along with sequence information toward the understanding of homologues and mutation frequency. A stipend of \$18,000 is offered with additional funding to cover supplies, travel, and so forth. Send curriculum vitae and names of references to: **Dr. R. Allen White, Department of Biomathematics-Box 237, University of Texas System Cancer Center, M. D. Anderson Hospital and Tumor Institute, 6723 Bertner Avenue, Houston, Texas 77030. An Equal Opportunity/Affirmative Action Employer.**

Directeur d'unité de recherches pharmaceutiques

Vous avez le tempérament et les qualités d'un PATRON et vous souhaitez en devenir un. Vous savez que la culture scientifique s'acquiert plus facilement que l'aptitude à DIRIGER et MOTIVER les hommes. Vous avez donc, avant tout, l'âme d'un ENTREPRENEUR.

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Vous serez reçu par un collaborateur de l'Entreprise mais nous vous demandons d'envoyer votre lettre de candidature manuscrite + C.V. sous réf. 6797 à Emplois et Carrières 30 rue Vernet 75008 Paris. qui transmettra.



CHAIR DEPARTMENT OF BIOLOGY BOSTON UNIVERSITY

Applications and nominations are invited for the position of Chair of the Department of Biology at Boston University. Candidates should be leaders in their fields of research and should be capable of providing aggressive and innovative leadership to the Department during an era of growth in the sciences at Boston University.

The Department of Biology includes 31 fulltime faculty and 120 graduate students with a broad spectrum of research interests. Extramural funding for biological research exceeds \$2 million annually. Boston University is currently completing a \$70 million program to improve its science and engineering facilities.

Applications, including a curriculum vitae and names of three references should be sent to:

**Dr. Thomas H. Kunz
Chairman, Search Committee
Department of Biology
Boston University
Boston, MA 02215**

Application deadline is October 1, 1985. The successful candidate will assume office on September 1, 1986.

Boston University is an Affirmative Action / Equal Opportunity Employer.

NATIONAL INSTITUTES OF HEALTH PUBLIC HEALTH SERVICE DEPARTMENT OF HEALTH AND HUMAN SERVICES

OPENING DATE: APRIL 1, 1985

CLOSING DATE: APRIL 30, 1985

(All applications must be postmarked before closing date)

The National Institutes of Health invites nominations and applications for the position of Director, National Institute of Child Health and Human Development, (NICHD).

The Institute is responsible for the conduct and support of research and research training relating to maternal health, child health and human development, including research and research training in the special health problems and requirements of mothers, children, and families, and in the sciences relating to human reproduction and population. Nationally and within its own facilities, the Institute administers programs of clinical and fundamental research and research training, promotes the application of research findings to clinical practices, and disseminates information about research advances to scientists, health practitioners, and the public.

This is a Civil Service position in the Senior Executive Service (SES), with an authorized salary range from \$61,296 to \$68,700 per annum depending on qualifications. Candidates may be eligible for Physicians Comparability Allowance up to \$10,000 per year. Alternately, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.

Mandatory professional/technical qualifications are either an M.D., Ph.D., D.P.H., or equivalent degree or experience, and research experience in pediatrics, obstetrics and gynecology, reproductive sciences or behavioral and social sciences as related to maternal and child health or the population sciences as related to health.

Mandatory Managerial/Executive Qualifications are:

Experience in the management of a basic or clinical research program, demonstrating competence to assume leadership responsibilities in assuring that national and agency goals and priorities are considered in carrying out the functions and responsibilities of the organization; establishing and maintaining relationships with key individuals and groups outside the organization; directing and guiding programs and projects, including long-term and short-term planning and establishing objectives and priorities; establishing procedures for the development and defense of the organization's budget, and allocating fiscal and personnel resources to support program implementation; developing processes to implement EEO objectives and overseeing activities to assure the fair and equitable employment of qualified persons; and developing and implementing procedures for monitoring program performance, including periodic analysis and evaluation.

Candidates who meet the mandatory qualifications will be further evaluated by the Search Committee on the following factors: scientific peer recognition, training and education, honors and awards and research experience and leadership. Additional information may be obtained from Mrs. Helen C. Stafford, (301) 496-4197.

Applications (Personal Qualifications Statement, SF-171) are to be sent to

**Helen C. Stafford, Executive Secretary, Search Committee for Director, NICHD, National Institutes of Health,
Building 1, Room 19, Bethesda, Maryland 20205.**

A current curriculum vitae and bibliography must accompany all applications. Applications of women and/or minority group members are especially solicited.

ALL QUALIFIED CANDIDATES WILL RECEIVE CONSIDERATION WITHOUT REGARD TO RACE, RELIGION, COLOR, SEX, AGE, NATIONAL ORIGIN, LAWFUL POLITICAL AFFILIATION, MARITAL STATUS, UNION MEMBERSHIP, OR ANY NONDISQUALIFYING PHYSICAL OR MENTAL HANDICAP.

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