

cesses that impinge on such a wide variety of fields.

The book itself is not particularly well prepared. The typescript with handwritten equations is difficult to read. Several of the papers contain an annoying number of typographical errors and, in one case, transpositions of text. The references have not been updated; papers from 1980 are still listed as "to be published."

BARBARA L. WHITTEN

Lawrence Livermore National
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Radio Emissions

Extragalactic Radio Sources. Papers from a symposium, Albuquerque, N.M., Aug. 1981. DAVID S. HEESCHEN and CAMPBELL M. WADE, Eds. Reidel, Boston, 1982 (distributor, Kluwer Boston, Hingham, Mass.). xviii, 490 pp., illus. Cloth, \$54.50; paper, \$26. International Astronomical Union Symposium no. 97.

In some ways this book is to extragalactic radio astronomers what a detailed field guide to tree identification is to foresters. The 148 papers (27 of which were invited) in the volume are prize specimens. The range of subjects, the depth of research, and especially the amount of activity from related fields described in these proceedings are remarkable.

Ten years ago the material in a book such as this would have consisted mainly of radio continuum and polarization studies of radio galaxies and quasars. No longer. In the past five years the field has broadened explosively, and the book contains optical and x-ray, as well as radio, observations. In addition, the types of objects discussed include the galactic center, SS 433, Seyfert galaxies, and Centaurus A, as well as the usual radio galaxies, quasars, and BL Lacertae objects. Size scales vary from a millisecond of arc to 2π radians; distances from the microscopic, solar-system-like scales of superluminal radio sources to billions of light years; and times from "flickers" of a few hours to cosmological scales.

But the book is more than a field guide. Notable trends of unification at a level, for the first time, beyond the speculative can be found in it. J. Oort's opening lecture summarizes the emerging synthesis found in some detail in other papers. Quasars, radio galaxies, and Seyferts have long been thought to exhibit substantial morphological differ-

ences in their radio properties. As radio sources, they have been separated into phyla. Although no grand consensus is evident in the proceedings, a point made repeatedly is that the morphological differences may, in fact, be illusory and attributable to strong observational selection effects as well as to evolutionary changes in the universe on time scales of galaxy evolution. It is especially exciting that the new diversity in extragalactic radio astronomy seems to be leading to synthesis and understanding rather than fragmentation and incohesiveness.

To the active researcher in extragalactic astronomy the book can be the most important addition to a bookshelf in years. Even though its research content will mostly appear in standard journals, the compilation of the material in a single reference is invaluable for expediting the merger of timely observations, speculation, and research strategies into bold new ideas and interpretations. Because the meeting was so well attended, the contents of the book are essentially complete, as any useful field guide must be.

The book does not and was probably never intended to provide a simplified overview of the entire field and all of its most pressing research directions. Therefore it is not a book for the casually interested. What's more, the amount of information is overwhelming if not intimidating. There were times in my reading of the book when I felt like a Martian handed only a field guide to tree identification and given the task of summarizing the latest results in terrestrial forest ecology.

BRUCE BALICK

Department of Astronomy,
University of Washington,
Seattle 98195

Books Received

Advances in Red Blood Cell Biology. Papers from a symposium, Florence, Mar. 1981. D. J. Weatherall, G. Fiorelli, and S. Gorini, Eds. Raven, New York, 1982. xx, 424 pp., illus. \$48.

Air Pollution and Athletic Performance. William Brooks McCafferty. Thomas, Springfield, Ill., 1981. xiv, 228 pp., illus. \$19.75.

Algebra for the Practical Worker. J. E. Thompson. Van Nostrand Reinhold, New York, ed. 4, 1982. xviii, 278 pp. Paper, \$6.95. Mathematics Library for Practical Workers.

L'Analyse du Langage chez l'Enfant. Les Activités Métalinguistiques. Serge Brédart and Jean-Adolphe Rondal. Mardaga, Brussels, 1982. 148 pp. Paper, 460 BF. Psychologie et Sciences Humaines.

Analysis of Vertebrate Structure. Milton Hildebrand. Illustrated by Viola and Milton Hildebrand. Wiley, New York, ed. 2, 1982. xvi, 654 pp., illus. \$27.95.

Contributions to Statistics. William G. Cochran. Wiley, New York, 1982. Various pages, illus. \$85.

Crystallography for Solid State Physics. Ajit Ram Verma and Onkar Nath Srivastava. Halsted (Wiley), New York, 1982. xvi, 348 pp., illus. \$21.95.

Cultural Components in the Scientific Attitude to Nature. Eastern and Western Modes? Aant Elizina and Andrew Jamison. Lund University Research Policy Institute, Lund, Sweden, 1981. viii, 76 pp.

Paper, 35 Sw. Kr. Technology and Culture Occasional Report Series No. 2.

The Dieter's Dilemma. Eating Less and Weighing More. William Bennett and Joel Gurin. Basic Books, New York, 1982. xiv, 316 pp. \$14.95.

Dynamic NMR Spectroscopy. J. Sandström. Academic Press, New York, 1982. xii, 226 pp., illus. \$39.50.

Earth. Frank Press and Raymond Siever. Freeman, San Francisco, ed. 3, 1982. xx, 614 pp., illus. \$24.95.

Earthly Pleasures. Tales from a Biologist's Garden. Roger B. Swain. Illustrations by Laszlo Kubinyi. Scribner, New York, 1982. x, 198 pp. Paper, \$5.95. Reprint of the 1981 edition.

Earthquake. Bryce Walker and the editors of Time-Life Books. Time-Life Books, Alexandria, Va., 1982. 176 pp., illus. \$9.95. Planet Earth.

Future Survey Annual 1980-81. A Guide to the Recent Literature of Trends, Forecasts, and Policy Proposals. Michael Marien, Ed. World Future Society, Bethesda, Md., 1982. xii, 268 pp. Paper, \$25.

Geometry for the Practical Worker. J. E. Thompson. Van Nostrand Reinhold, New York, ed. 4, 1982. xvi, 260 pp., illus. Paper, \$6.95. Mathematics Library for Practical Workers.

Geometry, Particles and Fields. Björn Felsager. Carsten Clausen, Ed. Odense University Press, Odense, Denmark, 1981. xx, 644 pp., illus. Paper, Dan. Kr. 110.

Growth and the Development of Pattern. Papers from a meeting, Sussex, England, June 1981. R. M. Gaze, V. French, M. Snow, and D. Summerbell, Eds. Cambridge University Press, New York, 1982. iv, 328 pp., illus. \$49.50. *The Journal of Embryology and Experimental Morphology*, vol. 65 Supplement.

Lead Absorption in Children. Management, Clinical, and Environmental Aspects. Papers from a conference, Baltimore, Nov. 1979. J. Julian Chisolm, Jr., and David M. O'Hara, Eds. Urban & Schwarzenberg, Baltimore, 1982. xii, 230 pp., illus. \$27.50.

Life in the Sea. Readings from *Scientific American*. Introductions by Andrew Todd Newberry. Freeman, San Francisco, 1982. viii, 248 pp., illus. Paper, \$12.95.

Les Lymphomes Malins Non Hodgkiniens. G. Hoerni-Simon and R. Zittoun, Eds. Doin, Paris, 1981. 168 pp., illus. Paper, 128 F. Progrès en Hématologie 2.

Man, Religion, and Science. Oscar Zaglits. Vantage Press, New York, 1982. xvi, 216 pp. \$10.95.

The Mathematical Experience. Philip J. Davis and Reuben Hersh. Houghton Mifflin, Boston, 1982. xxii, 440 pp., illus. Paper, \$9.95. Reprint of the 1981 edition.

Mathematical Methods for Mathematicians, Physical Scientists and Engineers. J. Dunning-Davies. Horwood, Chichester, England, and Halsted (Wiley), New York, 1982. 416 pp., illus. \$57.95. Ellis Horwood Series in Mathematics and Its Applications.

Prostaglandins. James B. Lee, Ed. Elsevier, New York, 1982. xviii, 378 pp., illus. \$49.50. Current Endocrinology.

Psycholinguistique et Handicap Mental. Recherches Récentes et Perspectives. Papers from a meeting, Liege, May 1981. J. A. Rondal, J. L. Lambert, and H. H. Chipman, Eds. Mardaga, Brussels, 1981. 246 pp. Paper, 520 BF. Psychologie et Sciences Humaines.

The Psychology of Vigilance. D. R. Davies and R. Parasuraman. Academic Press, New York, 1982. viii, 288 pp. \$32.50. Organizational and Occupational Psychology.

Relaxin. Proceedings of a workshop, Honolulu, June 1980. G. D. Bryant-Greenwood, H. D. Niall, and F. C. Greenwood, Eds. Elsevier/North-Holland, New York, 1981. xiv, 402 pp., illus. \$65.

A Revised Handbook to the Flora of Ceylon. Vol. 3. M. D. Dassanayake, Ed. Published for the Smithsonian Institution and the National Science Foundation by Amerind, New Delhi, 1981 (available as TT 78-52029/03 from the National Technical Information Service, Springfield, Va.). xii, 500 pp., illus. \$36.

Trigonometry for the Practical Worker. J. E. Thompson. Van Nostrand Reinhold, New York, ed. 4, 1982. xvi, 200 pp., illus. Paper, \$6.95. Mathematics Library for Practical Workers.

2081. A Hopeful View of the Human Future. Gerard K. O'Neill. Simon and Schuster, New York, 1982. 286 pp., illus. Paper, \$6.25. A Touchstone Book. Reprint of the 1981 edition.

Volcanoes and the Earth's Interior. Readings from *Scientific American*. Introductions by Robert and Barbara Decker. Freeman, San Francisco, 1982. x, 142 pp., illus. Cloth, \$17.95; paper, \$8.95.

Western Australian Plant Names and Their Meanings. A Glossary. F. A. Sharr. University of Western Australia Press, Nedlands, 1978 (U.S. distributor, ISBS, Beaverton, Ore.). xxxvi, 228 pp. Paper, \$24.95.

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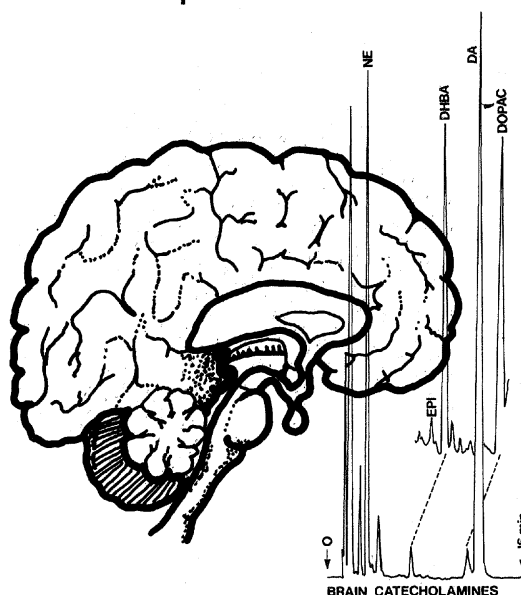
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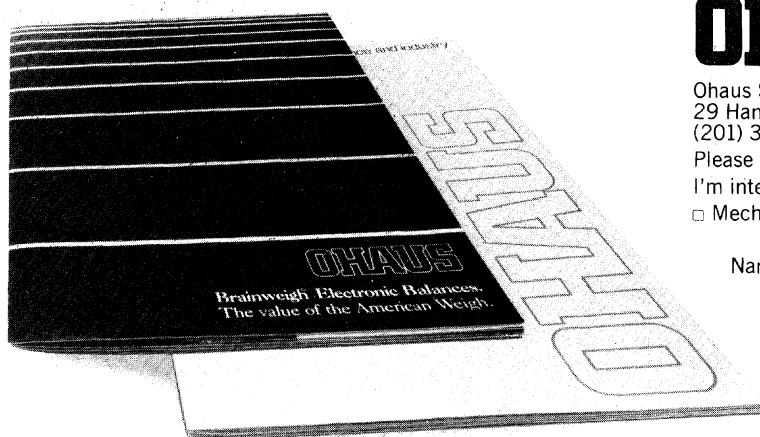
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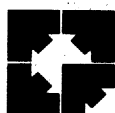
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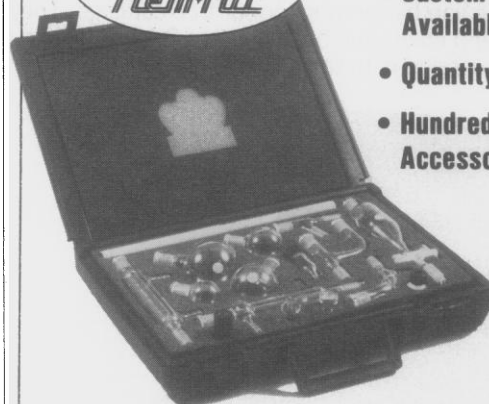
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POSITIONS OPEN

ASSISTANT PROFESSOR, NEUROBIOLOGY AND BEHAVIOR. State University of New York (SUNY) Stony Brook is seeking candidates for a tenure-track position at the assistant professor level for the 1983-1984 academic year. The department presently has 15 faculty with primary appointments and three with joint appointments. These faculty have broad interests in cellular and integrative neurobiology. Candidates should have at least 2 years of postdoctoral experience. Letters of application should be accompanied by curriculum vitae, statement of research and teaching interests, and the names and addresses of at least three references. Please send all materials to: **Dr. David H. Cohen, Department of Neurobiology and Behavior, SUNY Stony Brook, Stony Brook, N.Y. 11794. SUNY Stony Brook is an Equal Opportunity/Affirmative Action Employer.** AK 421A.

UNIVERSITY OF FLORIDA. Department of Medicine seeks an **ASSOCIATE IN MEDICINE** with a Ph.D. in biochemistry or a related field with publications to study metabolism of insulin and GI peptides by liver. Three years of postdoctoral experience required with some experience in hepatocyte isolation. Recruiting deadline: 30 September 1982. Anticipated starting date: 15 October 1982. Contact **R. I. Mishin, M.D., Box J-226, JHMC, University of Florida, Gainesville, Florida 32610. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT IN NEUROSCIENCE/SURGERY (SCIENTIFIC PROGRAMMER). Develop software and maintain hardware for sensory research and microprocessor development laboratories. Both laboratories configured around PDP-11 (LAB 40 and 03), respectively. Experience in assembly language programming and digital design essential. Salary: \$18,000, negotiable annually. Send complete résumé to: **Dr. Charles J. Vierck, Jr., Department of Neuroscience, Box J-244, JHMC, University of Florida, Gainesville, Florida 32610.** Application recruiting deadline: 14 October 1982. Anticipated starting date: October 1982. *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR—The University of California, Irvine, Department of Biological Chemistry in the College of Medicine, invites applications for tenure-track appointments at the assistant professor level; under exceptional circumstances, applications will be considered at other professorial levels. Teaching responsibilities involve instructing medical and graduate students in selected areas of biochemistry. Research experience and interest in eukaryotic cell biochemistry or molecular biology including, but not restricted to, genetics, macromolecular biosynthesis and its control, regulation of gene expression, gene structure, processing of macromolecules and developmental control of gene expression, is preferred. Faculty members are expected to develop a strong, independent research program. Send curriculum vitae, including a synopsis of research experience, a detailed description of the proposed research program, and the names of four persons who can be contacted for letters of reference, by 20 November 1982 to: **Search Committee, Department of Biological Chemistry, University of California, Irvine, California College of Medicine, Irvine, California 92717. An Affirmative Action/Equal Opportunity Employer.**

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Applications—Interested individuals should send the following information to: **Philipp Strittmatter, Department of Biochemistry, University of Connecticut Health Center, Farmington, Conn. 06032.**

- 1) Complete curriculum vitae and bibliography.
- 2) Three or more letters of recommendation bearing upon the points above.
- 3) A brief description of future research interests, objectives, and experimental plan, and
- 4) If available, reprints of most significant work.

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BIOCHEMIST required for 1 October 1982 or as soon as possible thereafter, to join group studying mechanisms of carcinogenesis. Experience with isolation and characterization of enzymes required, experience with carcinogen metabolizing enzymes an advantage.

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Applications to: **Professor Dr. Oesch, Department of Toxicology and Pharmacology, University of Mainz, Obere Zahlbacher Strasse 67, 6500 Mainz, FRG.**

CURATOR/INSECT SYSTEMATIST

Assistant professor—tenure-track position. Duties include research on systematics of a major arthropod taxon, management and improvement of a large entomological collection, and teaching of introductory insect biology. Qualifications include a Ph.D. in systematic entomology. Send curriculum vitae, post-secondary transcripts, and names of three or four referees to: **M. J. Tauber, Chairman, Department of Entomology, Cornell University, Ithaca, N.Y. 14853.** Application deadline: 1 December 1982. *Cornell University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ANALYTICAL CHEMISTRY: Seek Ph.D. holders to apply for tenure-track assistant/associate professor position starting August 1983. Rank dependent upon qualifications. Research interest may be in any area of analytical chemistry or at the interface of analytical and other areas of chemistry. Apply by 15 October with complete résumé, undergraduate and graduate transcripts, a description of research plans, plus three reference letters to: **Professor Michael L. Gross, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, Nebraska 68588-0304. Affirmative Action/Equal Opportunity Employer; applications from women and minorities encouraged.**

Harvard University

ASSISTANT PROFESSOR CELLULAR AND DEVELOPMENTAL BIOLOGY (CDB)

The CDB Department at Harvard University will be making an appointment at the assistant professor level during the coming academic year. The specific area of specialization within the area of cellular and developmental biology is less important than the candidate's excellence. Salaries for assistant professors in the 1982-1983 budget year range from \$23,500 to \$25,700. Complete applications and three letters of recommendation should be sent by 1 November 1982 to:

**Chairman, CDB Search Committee
The Biological Laboratories
Harvard University
16 Divinity Avenue
Cambridge, Mass. 02138**

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CORNELL UNIVERSITY ASSISTANT PROFESSOR

INVERTEBRATE DEVELOPMENTAL BIOLOGY

The Section of Genetics and Development, Division of Biological Sciences, is seeking a person with research interests in the developmental biology of invertebrates for fall 1983. The successful candidate will be expected to develop a course in invertebrate development, participate in a course in basic developmental biology, and maintain an active research program. Candidates should send curriculum vitae, a statement of research interests, and the names of three references. Please arrange to have three letters of reference sent directly to:

**Ross J. MacIntyre
Chairman, Developmental Biology Search Committee
Section of Genetics and Development
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Ithaca, New York 14853**

Deadline for applications is 30 October 1982.

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ASSISTANT PROFESSOR MOLECULAR GENETICS

Candidates sought to conduct independent research in the field of molecular genetics, preferably with an interest in eukaryotic cells or their viruses. Tenure-track position with light teaching load, excellent lab facilities, and strong research environment. Applicants are invited to submit a curriculum vitae, representative publications, and three letters of recommendation by 1 November 1982 to: **Chairman of the Search Committee, Department of Human Genetics, Yale University School of Medicine, 333 Cedar Street, New Haven, Conn. 06510. Yale is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT OR ASSOCIATE PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology and Toxicology, West Virginia University Medical Center, has a tenure-track position to be filled during the 1982-1983 academic year. Applicants should have a Ph.D., M.D., or equivalent and a minimum of 2 years of postdoctoral research experience. Training in pharmacology is highly desirable. Evidence of the ability to develop an independent research program is essential. In addition to independent research, duties will include collaborative research and the teaching of students of the health professions and graduate students. Please note that this position is in addition to one advertised in July. Curriculum vitae and three letters of recommendation should be sent to: **Dr. William W. Fleming, Chairman, Department of Pharmacology and Toxicology, West Virginia University Medical Center, Morgantown, W. Va. 26506.** The closing date for applications is 1 October 1982. *West Virginia University is an Equal Opportunity/Affirmative Action Employer.*

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The appointee to this nontenured position will develop courses and curricula for non-farming students. The curricula will be directed toward undergraduates and graduate students in nutrition, public health, and development studies whose careers will entail decision-making in areas affecting and affected by agriculture.

Areas of particular research and teaching interest include implications of agricultural policies and technology on nutrition and food safety; the relationship between agriculture and the larger economy; and the influence of agriculture on policies on environmental quality and rural economic and social life.

The candidate must have demonstrated the ability to work in an exceptionally broad range of agricultural areas—scientific, technical, and social—required to fulfill the promise of this chair.

The Tufts School of Nutrition is a multidisciplinary faculty including biomedical, social, and political scientists whose mission is to conduct research, and educational and community service programs in nutrition.

Applications and nominations should include curriculum vitae, names of three references, and statements of teaching and research interests, and should be submitted by 15 October 1982 to:

**Stanley N. Gershoff, Ph.D., Dean
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POSITIONS OPEN

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University of Minnesota**

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

The University of Michigan Medical School, Department of Pediatrics, has one opening for M.D. at the **ASSOCIATE PROFESSOR/PROFESSOR** level.

Academic position to direct Section of Pediatric Endocrinology in the Department of Pediatrics. Must be Board-certified with clinical and research experience in endocrinology.

Direct inquiries to: **Robert P. Kelch, M.D., Chairman, Department of Pediatrics, C. S. Mott Hospital, F2438, Box 66, Ann Arbor, Michigan 48109.** A non-discriminatory, Affirmative Action Employer. Code 18.

BIOCHEMISTS—MOLECULAR BIOLOGISTS

Tenure-track faculty positions at assistant and associate professor levels. Candidates should be interested in developing strong and independent research with long-term growth potential on the mechanisms of gene expression at the molecular level in either prokaryotic or eukaryotic systems. This area may be interpreted broadly from chemical-physical to genetic interests. Teaching includes medical, dental, and graduate students at sizable and rapidly expanding medical complex. Biochemistry department with excellent new facilities is undergoing substantial expansion. Salary commensurate with experience and competitive. Curriculum vitae, brief statement of present and future research interests, and three letters of recommendation should be sent to: **Dr. Robert D. Wells, Chairman, Department of Biochemistry, University of Alabama-Birmingham, Schools of Medicine and Dentistry, University Station, Birmingham, Alabama 35294.** An Equal Opportunity/Affirmative Action Employer.

BIOCHEMISTRY/MICROBIOLOGY RESEARCH ASSOCIATE. We are seeking a highly qualified individual to fill a research associate position in the Bio-materials Conversion Laboratory, U.S. Department of Agriculture, Northern Regional Research Center, Peoria, Illinois. The appointee will be expected to be a major participant in an ongoing research program designed to elucidate the biochemical mechanism of lignocellulosic degradation by microorganisms. Preference will be given to candidates with experience in enzyme purification techniques and/or membrane biochemistry. This position is a term appointment (up to 2 years) at the GS-11 level (approximately \$23,500 per year). U.S. citizenship is required. Send curriculum vitae and three letters of recommendation to: **Dr. J. M. Gould, Northern Regional Research Center(S), 1815 North University Street, Peoria, Illinois 61604.** Telephone: 309-685-4011. *Equal Opportunity Employer.*

BIOLOGY/MICROBIOLOGY/GENETICS. The Division of Liberal Studies, Biological and Physical Science Concentration Area, invites applications for a tenure-track position, available 1 January 1983, at the level of assistant professor. The responsibilities include instruction, both lecture and laboratory, in a beginning microbiology course designed for nursing and allied health students and an upper-level genetics course for preprofessional and allied health students. Although the prime responsibilities are teaching, faculty activities also include research and service. Desired qualifications include an earned doctorate and teaching experience in the above areas. Salary is competitive. Send résumé, three letters of reference, and copies of all transcripts by 15 October 1982 to: **Dr. Robert R. Roales, Coordinator of Natural Sciences and Allied Health, Indiana University at Kokomo, 2300 South Washington Street, Kokomo, Indiana 46902.** Indiana University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT OR ASSOCIATE SCIENTIST (Biochemist)—Biology Department of the Woods Hole Oceanographic Institution is seeking applicants for one or two positions in experimental biochemistry of marine organisms. These positions will be tenure-track and may be at either the assistant or associate scientist level, depending upon qualifications. We are seeking individuals with strong interests in: nutritional biochemistry, with a possible emphasis on lipid biochemistry and physiology; and membrane biochemistry and physiology as related to the function of membranes and membrane proteins and possibly the effects and transport of foreign compounds. Individuals with these or other biochemical research interests that will include studies of organisms in the open ocean or the deep sea are especially encouraged to apply. Successful candidates must generate their own research funds. Inquiries or applications, including curriculum vitae, bibliography, representative publications, and names and addresses of references, should be sent to: **Personnel Manager, Box 54 P, Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543.** An Equal Opportunity Employer, M/F/H.

CHAIRMAN, DEPARTMENT OF RADIOLOGY

Henry Ford Hospital, a 1000-bed hospital and group practice affiliated with the University of Michigan, is seeking a chairman for the Department of Radiology. Attractions include full-time staff of 371 M.D.'s with 32 in radiology, large OPD and inpatient practice, four busy ambulatory satellites, third- and fourth-year medical clerkships, high-quality house staff program, large institutional research effort, and new radiological facilities and equipment ready in late fall 1982. Interested candidates are invited to send complete curriculum vitae to: **Thomas Killip, M.D., Chairman Search Committee, Henry Ford Hospital, 2799 West Grand Boulevard, Detroit, Michigan 48202.**

**DIRECTOR OF
NUCLEAR MAGNETIC RESONANCE
CLINICAL RESEARCH FACILITY**

The Mercy Health Care Foundation is establishing a major research and clinical facility to interact with existing extensive programs in imaging, nuclear magnetic resonance spectroscopy, and clinical medicine at the University of Illinois. We seek a nationally recognized individual with extensive research interests and publications in the area of biomedical applications of nuclear magnetic resonance to develop and direct the research and clinical activities. Funds are available for acquisition of state-of-the-art clinical and research instruments and supporting staff. Very competitive salary. Joint appointment, including tenured university position, to be available for suitable candidate.

Send curriculum vitae and names of four references by 1 October to: **Dr. Ben Williams, Chair, Nuclear Magnetic Resonance Search Committee, Mercy Hospital, 1400 West Park Avenue, Urbana, Illinois 61801.**

**FACULTY POSITION IN
POSTHARVEST PHYSIOLOGY**

The University of California, Davis, Department of Vegetable Crops, invites applications for a tenure-track faculty position at the assistant professor level—15 percent teaching, 85 percent research. A Ph.D. in plant physiology, biochemistry, horticulture, or other closely related disciplines and a background in plant science are required. It is expected that the successful applicant will conduct a research program in physiology of senescence in relation to quality and useful life of harvested vegetables and to teach and advise in the departmental and/or interdepartmental curriculum. Send curriculum vitae, including list of publications and teaching experience, academic transcripts, reprints, statement of career goals, and names of at least three references, by 10 November 1982 to: **Dr. L. Rappaport, Chair, Department of Vegetable Crops, University of California, Davis, California 95616.** Position open February 1983. *We are an Equal Opportunity/Affirmative Action Employer and invite applications from all qualified individuals.*

University of Michigan Medical School, Department of Pediatrics, has four openings for M.D. at the **INSTRUCTOR THROUGH PROFESSOR** level.

These individuals should be Board-qualified, patient care, teaching, and research-oriented in fields of hematology, infectious diseases, or immunology.

Direct inquiries to: **Robert P. Kelch, M.D., University Hospital, Ann Arbor, Michigan 48109.** A non-discriminatory, Affirmative Action Employer. Code 107, 106, 6, and 64.

**THE OPEN UNIVERSITY
FACULTY OF SCIENCE**



SECOND CHAIR IN BIOLOGY

Applications are invited for a newly established Chair in Biology at the Open University. The Headship of the Department will rotate between the new appointment and the holder of the Foundation Chair, Professor Steven Rose. Applications will be considered from candidates of proven excellence in teaching and research in any area of biology. However, the University is seeking to make an appointment in an area which will complement the existing skills and interests of the Department and would therefore particularly welcome applications from persons specialising in vertebrate physiology with an interest in environmental, reproductive or developmental biology.

The successful candidate will be expected to take up the appointment at the earliest convenient date. Salary will be within the normal UGC approved Professorial range plus USS benefits.

Further particulars may be obtained from the **Secretary (4454/1), The Open University, Walton Hall, Milton Keynes, MK7 6AA, England.**

Closing date for applications: 15th October.

Bioengineer

Integrated Genetics, a growing biotechnology/recombinant DNA company, is seeking a Ph.D. level scientist with training in fermentation technology and a strong academic background in bioengineering. Major responsibilities of the position include the design and expansion of fermentation facilities, participation in the optimization and scale-up of a variety of biotechnological processes and the translation of these into manufacturing.

Candidates should have at least 2 years post-graduate training in fermentation and recovery procedures.

We offer an attractive compensation and benefits package.

Please forward your resume to: **Charlotte Gregory.**

**Integrated Genetics, Inc.
51 New York Avenue
Framingham, Mass. 01701**

DEPUTY DIRECTOR FOR TECHNICAL OPERATIONS

The Princeton Plasma Physics Laboratory, one of the world's leading laboratories engaged in the development of magnetic fusion as an inexhaustible energy source, seeks a Deputy Director for Technical Operations who will be responsible for the Laboratory's major experimental projects—TFTR, PLT, PDX, etc.—and the facilities and activities that support them.

The principal responsibilities of the Deputy Director will include the management of day-to-day technical operations in accordance with the Laboratory's research program, the construction and maintenance of experimental facilities, and the oversight of support facilities and personnel. The Deputy Director will implement the Laboratory's Safety and QA programs.

The essential qualifications for this position are broad experience in experimental physics or related advanced technologies, and successful management of large technical enterprises. Other requirements are familiarity with government operations and procedures, particularly those concerned with the support of scientific projects, and experience with the interactions of academic, industrial, and FFR&D institutions.

The Laboratory offers stimulating and challenging work, a salary fully commensurate with experience, and a comprehensive benefit package. Please forward a detailed resume and salary requirements to:

**Dr. Harold P. Furth, Director
Princeton Plasma Physics Laboratory
Post Office Box 451
Princeton, New Jersey 08544**

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**Plasma Physics
Laboratory**
Princeton University

THE SALK INSTITUTE BIOTECHNOLOGY/INDUSTRIAL ASSOCIATES, INC.

SIBIA

is a new biotechnology company interested in the whole spectrum of biotechnology and is located in La Jolla, California.

SIBIA is a company which:

- 1. has a strong basic research component;**
- 2. maintains close ties to very senior academic consultants; and**
- 3. works on interesting research projects.**

You are invited to submit an application for the position of

STAFF SCIENTIST

This position requires a Ph.D. in molecular biology with 3-7 years of research experience in molecular and cellular biology, including recombinant DNA techniques and familiarity with gene regulation and expression in prokaryotic and eukaryotic systems. Knowledge of microinjection techniques is desirable. Applications, including a curriculum vitae, a statement of research interests and goals, a list of publications, and the names of three professional references should be submitted to:

SIBIA
P.O. Box 85800
Dept. BJG
San Diego, CA 92138
SIBIA is an equal opportunity employer.

FACULTY RESEARCH LEAVE AT ARGONNE

Argonne National Laboratory, one of the U.S. Department of Energy's major research and development centers, announces a Program of Faculty Research Leave at Argonne (FRLA). This Program enables faculty members on sabbatical leave from U.S. universities to collaborate in Argonne research programs in the basic physical and life sciences, mathematics, computer science, and engineering, as well as in a variety of applied research programs relating to coal, conservation, environmental impact, fission, fusion, and solar energy. Typical financial support remitted to the university for these appointments includes 50% of salary and fringe benefits for nine months of the appointment and 100% of the summer salary and fringe benefits.

Additional information may be obtained from: ARGONNE DIVISION OF EDUCATIONAL PROGRAMS, 9700 South Cass Avenue, Argonne, Illinois 60439. Or call (312) 972-3365.



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HOFFMANN-LA ROCHE

Senior Scientist Obesity

Hoffmann-La Roche, one of the world's leaders in the pharmaceutical industry, has an exciting career opportunity in obesity research.

The successful candidate will supervise scientific personnel, present research at internal and external meetings, and collaborate with peers in other therapeutic areas.

Qualifications: PhD in biochemistry, pharmacology, or nutrition. Proficiency in conducting basic and applied research in animal models of obesity. Basic knowledge of lipid metabolism and thermogenesis essential. Excellent oral and written skills required.

Roche offers an outstanding compensation package, including an attractive bonus, and an environment that encourages professional growth.

Only responses including present salary will be acknowledged. Please send resume to **Mrs. Eleanor M. Malone, Position 570, Employment Department.**



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Nutley, NJ 07110

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POSITIONS OPEN

BIOCHEMICAL ENGINEER

Cargill Research has a challenging opportunity for an individual skilled in biotechnology to produce products and solve production problems for Cargill Operations. The primary focus will be on fermentation systems and enzyme applications.

Successful candidates should have postgraduate study in chemical or biochemical engineering plus industrial exposure to fermentation and advanced separation techniques.

The Cargill Research Center is located in an attractive residential area 12 miles west of downtown Minneapolis, Minnesota.

Please send résumé to:

Jeff Goldstein

Cargill, Inc.

P.O. Box 9300

Minneapolis, Minn. 55440

Cargill is an Equal Opportunity Employer.

FACULTY POSITIONS—MOLECULAR GENETICS. The Department of Microbiology, University of Texas Health Science Center at San Antonio (UTHSCSA), seeks to hire several tenure-track faculty members (junior-to-senior appointments) with interests in the regulation of gene expression at the molecular level. Quality of research accomplishments will be the prime determinant in selecting individuals. Potential candidates with strong records of research achievement in the molecular biology-genetics of any biological system (prokaryotic, eukaryotic, or viral) are encouraged to apply. Successful candidates are expected to develop/maintain innovative research programs and to participate in departmental teaching activities. This is an exceptional opportunity to join an expanding department committed to excellence in research and teaching and located in a desirable academic geographic setting. Applicants should mail curriculum vitae and a statement of current and future research goals, and arrange to send three letters of reference by 15 November 1982 to: **Dr. Joel B. Baseman, Chairman, Department of Microbiology, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, Texas 78284. UTHSCSA is an Equal Opportunity/Affirmative Action Employer.**

PATHOLOGIST. A cardiovascular pathologist is needed to fill a faculty vacancy at the University of California, Los Angeles (UCLA), School of Medicine. Qualifications include an M.D. degree, Board-certification in anatomical pathology, eligibility for California licensure, and 2 or 3 years of research training. Duties will include assisting in the operation of our autopsy service, teaching of residents, medical, dental, and graduate students, and developing an independent research program. Appointment at the assistant professor level is anticipated. Application should include curriculum vitae, a summary of research interests, and the names of four references and should be sent to: **P. A. Cancilla, M.D., Chairman, Department of Pathology, UCLA School of Medicine, Los Angeles, Calif. 90024. UCLA is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.**

A PEDIATRIC PATHOLOGIST is needed to fill a faculty vacancy at University of California, Los Angeles (UCLA) School of Medicine. Qualifications include an M.D. degree, Board-certification in anatomical pathology, eligibility for California licensure, and 2 or 3 years of research training. Duties will include assisting in the operation of our autopsy service, teaching of residents, medical, dental, and graduate students, and developing an independent research program. Appointment at the assistant professor level is anticipated. Application should include curriculum vitae, a summary of research interests, and the names of four references, and should be sent to: **P. A. Cancilla, M.D., Chairman, Department of Pathology, UCLA School of Medicine, Los Angeles, Calif. 90024. UCLA is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.**

POSTDOCTORAL POSITION available autumn 1982 to investigate the molecular basis of insulin action. Specific areas of interest include structure-function studies of the insulin receptor, studies of receptor metabolism and the investigation of enzyme activation insulin-receptor interaction. Applicant should have a strong background in biochemistry and/or cell biology. Please send curriculum vitae and the names of three references to: **Dr. Paul Pilch, Department of Biochemistry, Boston University School of Medicine, 80 East Concord Street, Boston, Mass. 02118. Equal Opportunity Employer, M/F.**

NATIONAL CANCER INSTITUTE NATIONAL INSTITUTES OF HEALTH PUBLIC HEALTH SERVICE

The Division of Cancer Treatment is seeking applicants for an **Expert Cancer Biochemist** in the Biological Development Branch, Biological Response Modifiers Program.

The Biological Development Branch conducts studies in the development and characterization of selected biological response modifiers with potential for therapeutic efficacy of cancer. Detailed and basic studies on biological response modifiers and on their mechanisms of action are performed *in vitro* and their immunopharmacology and therapeutic potential are explored in clinically relevant tumor models in experimental animals. Based on such information, highly promising biological response modifiers are evaluated in cancer patients, with an emphasis on determining the optimal biological response modifying schedule of administration, toxicity and anti-tumor effects.

As a Cancer Expert, the incumbent will establish an independent research program involving the isolation and characterization of lymphokines and/or tumor antigens. Applicants must have

experience in the above and have an established record of independent research utilizing modern and innovative techniques in immunochemistry.

The position of "Expert" has a duration of 2 years, with the possibility of being extended for an additional two years. The salary range will be \$33,585-\$43,666, depending on the expertise and experience of the individual selected for the position. Applicant selected will be covered by Civil Service Retirement and will be eligible for life insurance and health benefits.

The position is located at the Frederick Cancer Research Facility in Frederick, Maryland (41 miles from Bethesda, Maryland).

NIH is an equal opportunity employer.

Interested persons should respond by submitting a curriculum vitae with names of three references to:

Dr. Ronald B. Herberman
Chief, Biological Development Branch
National Cancer Institute
Frederick Cancer Research Facility
Frederick, Maryland 21701

If you need additional information, please call Dr. Herberman at area code 301/695-1323.

Closing Date: October 15, 1982

contribute to broad toxicological activities for **SOHIO**
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MANAGER, CORPORATE TOXICOLOGY

Grow with us as we project a \$60 billion investment in energy research, petroleum exploration production refining, chemicals and new business. Our expanding corporate activities have created a demand for ever increasing toxicological activities company-wide.

This professionally challenging position offers you an opportunity to build on your:

- **PhD, Toxicology or closely related field (Board Certification in Toxicology required)**
- **Extensive related professional experience (industrial atmosphere preferred) and demonstrated managerial ability**
- **Laboratory and toxicology information techniques background**

Reporting to the Office of the Director of Medical Services, your key responsibility would be to **plan** and **coordinate** all aspects of the company's efforts in the areas of toxicology (including ecotoxicology) as it relates to product safety, employee health, environmental homeostasis and compliance with legal requirements.

- **Counsel management on the toxicity and adverse health effects of raw materials, man-**

ufacturing processes and products of the company's operating divisions.

- **Interface with professional and trade associations and other toxicological forums.**
- **Provide toxicological information support, as requested, to customers, physicians and government agencies.**

We offer an attractive compensation/benefits plan and professional working atmosphere for professional growth. **Our relocation package for new hires who are homeowners includes a mortgage interest differential allowance, third party home purchase option and other features normally restricted to internal transfers.** The next move is yours! Send your resume and salary/history requirements to:

Edward R. Miller, Manager, Executive Recruitment
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DIRECTOR RESEARCH BIOCHEMIST

Gillette Research Institute, a Division of The Gillette Company, has two new career opportunities in its expanding Biological Sciences Department.

DIRECTOR, BIOLOGICAL SCIENCES DEPARTMENT to direct multidisciplinary research programs in skin and related research areas. Candidates must possess a strong background in pharmacology and/or biochemistry and have a demonstrated record of scientific accomplishment as substantiated by publications and patents. The ability to organize and manage a diverse group of creative scientists is essential. A PhD with 10 or more years experience is required, industrial experience preferred but not essential.

RESEARCH BIOCHEMIST to develop and carry out research in skin related areas. Candidates must have five years post-doctoral industrial or academic experience. Enzymology and/or immunochemistry, as well as, skin research experience desirable. An established research record and excellent communication skills are essential.

The Gillette Company is a leading worldwide manufacturer of consumer products including personal care and shaving products and writing instruments. In addition to an exceptional opportunity for recognition and growth, we offer a comprehensive salary and benefits package and a challenging work environment. Interested candidates are requested to submit a detailed Curriculum Vitae, including list of publications and patents, in strict confidence to:



Ms. Anne J. Schwartzbeck
Gillette Research Institute
1413 Research Boulevard
Rockville, Maryland 20850
(301) 424-2000

MICROBIOLOGIST OR MICROBIAL PHYSIOLOGIST

We are seeking applications for a position in our Research and Development Laboratories in the area of fermentation.

The successful candidate must have extensive training and state-of-the-art experience in:

- Strain selection techniques and mutagenesis
- Protein isolation techniques
- Enzymology

The candidate should be capable of initiating new and innovative programs.

This person should have a Ph.D. with 2–5 years' post-doctoral experience, or the equivalent.

Send resume, list of publications, and names of three professional references to:

Mr. Gordon R. McPherson, Manager
Personnel Administration
Research and Development Division
Corning Glass Works
Corning, NY 14831

CORNING
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POSITIONS OPEN

FACULTY POSITION, Cornell University, to study colloidal, interfacial, and transport phenomena and macromolecular interactions and physical properties of foods and biological materials as these affect functional properties. Teach a graduate course on the physical properties of biomaterials/food components.

Ph.D. in a physical or biophysical chemistry field with research experience in colloids, binding, and interfacial phenomena and macromolecular interactions. Send résumé, transcripts, statement of research interests, and three reference letters by 20 December 1982 to:

Dr. J. E. Kinsella
Institute of Food Science
Cornell University
Ithaca, N.Y. 14853

Cornell is an Affirmative Action/Equal Opportunity Employer.

UNIVERSITY OF BRITISH COLUMBIA DEPARTMENT OF ORAL BIOLOGY IMMUNOLOGIST

Applications are invited for a tenure-track position at the assistant professor level in the area of cellular immunology. The position will be available in the 1983–1984 academic year. Candidates must have a Ph.D. or D.D.S. and postdoctoral experience. The successful candidate will be expected to establish an independent research program, interact with other groups, and participate in teaching. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Candidates should forward their curriculum vitae, a description of research interests, and names of three referees to:

Dr. Barry C. McBride
Professor and Head
Department of Oral Biology
Faculty of Dentistry
The University of British Columbia
2199 Wesbrook Mall
Vancouver, British Columbia, Canada V6T 1Z7

IMMUNOLOGY

Imreg Inc., a biotechnology company engaged in research and development of immunoregulators affecting the human immune system, has openings for qualified Ph.D. immunobiologists and M.S. and B.S. level research assistants.

STAFF SCIENTISTS:

- 1) Ph.D. with postdoctoral background and interests in biochemical and/or cellular aspects of cell mediated immunity. This is a challenging position in the rapidly developing field of human lymphokines.
- 2) M.S. or Ph.D. level immunologist or biomedical engineer to operate and maintain an Epics V dual laser cell sorter facility. Must have at least 1 year of experience in operation of a fluorescent activated cell sorter.

RESEARCH ASSISTANTS:

- 1) B.S. or M.S. level to assist with general laboratory procedures including biochemical procedures, tissue culture, and operation of laboratory equipment. These are excellent opportunities for individuals with research experience and/or strong background in cell biology or biochemistry.

We offer a competitive salary and fringe benefit package in an attractive, well-equipped setting in one of America's most interesting cities. Send curriculum vitae and names of three references in confidence to: **Personnel Division, Imreg, Inc., P.O. Box 56643, New Orleans, La. 70156.**

MICROBIAL GENETICS/ MOLECULAR VIROLOGY INDIANA UNIVERSITY-BLOOMINGTON

The Department of Biology will appoint an assistant professor during the 1982–1983 academic year. Applicants will be expected to develop a strong research program in the microbial genetics of a bacterium or lower eukaryote in the area of molecular virology. The successful candidate will be expected to supplement and extend existing strengths in microbiology, molecular biology, and molecular genetics. Undergraduate teaching responsibilities will be in the area of microbial/molecular genetics. Send a résumé, including a description of research accomplishments and future plans, representative publications, and three letters of reference, to: **Dr. Rollin C. Richmond, Chairman, Department of Biology, MGMV Search, Indiana University, Bloomington, Indiana 47405**, by 4 October 1982. *Indiana University is an Equal Opportunity/Affirmative Action Employer.*

Microbiologists

We are seeking applicants for positions in our Biological Sciences Research Group, located in Richmond, California, to conduct work in fermentation technology.

PhD

Individuals will be considered at the PhD level with training in microbial physiology, biochemistry, enzymology, continuous/batch fermentation or bioengineering.

MS/BS

Individuals will be considered at the MS/BS level with training in enzyme technology, continuous culture techniques, food fermentations, or microbial genetics. Industry experience preferred but not necessary.

Stauffer Chemical Company offers competitive salaries and fringe benefits package. Please forward a resume to:



Ms. Dee A. Walker,
Personnel Manager,
1200 South 47th Street,
Richmond, CA 94804.

We are an affirmative action employer.

RESEARCH FELLOW

ANALYTICAL MICROSCOPY

A post-doctoral research fellowship is available at the American Museum of Natural History in collaboration with the Mount Sinai School of Medicine. The research program focuses on the characterization of amphiboles in terms of those mineralogical properties that may impart biological activity. In particular, the basic relationships of geologic provenance, crystal habit and intergrowths, physical properties and crystal-chemical properties will be studied. The position offers a unique opportunity to develop and carry out analytical microscopy investigations on amphiboles that are important in geology and environmental medicine.

Applicants should have a PhD and a strong background in mineralogy/crystallography/crystal chemistry with working experience in analytical electron microscopy (AEM, STEM, TEM, HRTEM, SEM), single-crystal and powder X-ray diffraction, electron microprobe analysis and appropriate sample preparation techniques.

The initial appointment will be for one year, with possible continuation. The starting date is October 1, 1982, or soon after. Candidates should send vitae and the names of three references to:

Dr. George E. Harlow
Dept. of Mineral Sciences

American Museum of Natural History

Central Park West at 79th Street
New York, New York 10024

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National Microelectronics Facility – Semiconductor Fabrication

The Government of Ireland has identified Microelectronics as a strategically important technology for development within the country. As one of a number of initiatives it has assigned substantial resources to the establishment of a microelectronics semiconductor fabrication training and applications centre at the National Institute for Higher Education, Dublin.

A custom designed building and modern semiconductor fabrication, assembly and test facilities will be provided.

Director

A dynamic Director with wide experience in the semiconductor fabrication field coupled with proven management ability is now being sought. The person appointed will be responsible for progressing the design and construction of the building and the specification of initial equipment for this project; and subsequently for directing the operations of the Centre.

The Centre will have a strong industrial orientation and will be closely associated with the National Institute for Higher Education and other third level colleges in Ireland.

An attractive salary, commensurate with experience, will be offered for this challenging post.

It is intended to make an early appointment and interested applicants should enclose a Curriculum Vitae when sending for further information to:

**National Microelectronics Facility,
C/o. National Institute for Higher Education,
Glasnevin, Dublin 9, Ireland.**

The closing date for receipt of Curricula Vitae is four weeks from the date of this publication.

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE NATIONAL INSTITUTES OF HEALTH PUBLIC HEALTH SERVICE DEPARTMENT OF HEALTH AND HUMAN SERVICES

HEALTH SCIENTIST ADMINISTRATOR (BIOLOGICAL SCIENCES)

The National Heart, Lung, and Blood Institute, Division of Lung Diseases, Interstitial Lung Diseases Branch, is seeking qualified applicants for a permanent appointment as Health Scientist Administrator (Biological Sciences). This position is in the Civil Service at the GS-13 or GS-14 level with a salary range of \$33,586 to \$50,112 per annum. The incumbent serves as a professional assistant to the Branch Chief with primary responsibilities for scientific review, evaluation, and administration of research grants and contracts; applies technical knowledge of the general field of pulmonary physiology, immunology, biochemistry or pharmacology; acts as a co-participant with the Branch Chief in the planning and direction of the Branch programs related to acute respiratory failure; and assists in project site visits and serves as a representative of the NHLBI.

Further information about the position and qualification requirements may be obtained by contacting Ms. Kathryn Osbourn at (301) 496-6477. Applications (Personal Qualifications Statements, SF-171) accompanied by a current curriculum vitae and bibliography should be submitted to Ms. Osbourn at: NHLBI Personnel, Building 31, Room 5A32, National Institutes of Health, 9000 Rockville Pike, Bethesda, Maryland 20205.

Applications must be postmarked no later than October 9, 1982. (The SF-171 form is available at all Federal Personnel Offices and Job Information Centers.)

*NATIONAL INSTITUTES OF HEALTH
IS AN EQUAL OPPORTUNITY EMPLOYER.*

POSITIONS OPEN

FACULTY POSITION

The Department of Chemistry, University of Minnesota, Minneapolis, seeks to add a Ph.D. **BIOORGANIC CHEMIST** (either an organic chemist with strong biological interests or a biochemist well versed in organic chemistry) as an assistant professor beginning September 1983. Applications at the tenured levels will also be considered. Teaching responsibilities will be primarily in the areas of organic and bioorganic chemistry. Curriculum vitae (including a list of publications), a detailed description of research interests, three letters of recommendation, and copies of undergraduate and graduate transcripts should be sent to: **Professor Harold S. Swofford, Jr., Chairman, Department of Chemistry, University of Minnesota, Minneapolis, Minnesota 55455.** Applications should be completed by 1 December 1982. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

FACULTY POSITION

The Department of Microbiology and Immunology, University of North Dakota School of Medicine, invites applications for a tenure-track faculty position at the assistant or associate professor level. Ph.D., M.D., or equivalent degree and at least 2 years of postdoctoral experience. Preference given to persons with demonstrated teaching and research capability in microbiology and immunology. Must be capable of establishing an independent research program in molecular biology (microbial genetics, molecular virology, or immunology) and have an interest in teaching. Position available after 1 October 1982. Submit an outline of research and teaching interests, curriculum vitae and bibliography, and three letters of reference to: **Dr. John W. Vennes, Chairperson, Department of Microbiology and Immunology, School of Medicine University of North Dakota, Grand Forks, N.D. 58202.** *An Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN PLANT PHYSIOLOGY

The University of California, Davis, Department of Vegetable Crops, invites applications for a tenure-track faculty position at the assistant professor level. A Ph.D. in plant or soil science with training in plant nutrition, soil fertility, and water relations is required. Research should focus on the influence of plant-soil interactions upon crop growth, yield, and quality or fertilizer/water use efficiency. The candidate will be expected to teach and advise in the undergraduate and/or graduate plant science or vegetable crops programs. Send curriculum vitae, including list of publications and teaching experience, academic transcripts, reprints, statement of career goals, and the names of at least three references, by 1 December 1982 to: **Dr. A. J. Bloom, Search Committee Chair, Department of Vegetable Crops, University of California, Davis, California 95616.** Position open March 1983. *We are an Equal Opportunity/Affirmative Action Employer and invite applications from all qualified individuals.*

NEUROBIOLOGY—Vertebrate neurobiologist faculty position. Tenure-track position at assistant professor rank available September 1983 in CNS neurobiology. The appointee will be expected to develop an independent research program of integration in sensory and motor systems of the generation and control of movement in the vertebrate CNS. Evidence of strong research activity and productivity is essential. Other responsibilities include participation in team-taught courses in neurobiology and animal physiology (graduate and undergraduate). A Ph.D. degree or equivalent is required. Preference will be given to those with teaching and postdoctoral experience. The salary is negotiable according to candidate's qualifications. Send curriculum vitae, a statement of research plans, and include at least three names of references by 30 September to: **Professor G. Pilar, THE UNIVERSITY OF CONNECTICUT, Biological Sciences Group, Physiology Section, U-42, Storrs, Conn. 06268.** *An Equal Opportunity/Affirmative Action Employer.* (SEARCH 3A5.)

POSTDOCTORAL ASSOCIATE, INSECT BIOCHEMISTRY. Synthesize labeled insect hormone and pheromone analogs; develop in vivo/vitro techniques for metabolism. Radiosynthesis or receptor protein experience preferred. Résumé and three reference letters to: **Professor Glenn D. Prestwich, Chemistry Department, State University of New York (SUNY) Stony Brook, Stony Brook, N.Y. 11794.** *SUNY Stony Brook is an Equal Opportunity/Affirmative Action Employer.* AK number 425.

POSITIONS OPEN

DEPARTMENT HEAD. Applications and nominations are invited for the position of the head of the Department of Plant Pathology and Crop Physiology, Louisiana Agricultural Experiment Station, Louisiana State University and Agricultural and Mechanical College, Baton Rouge, Louisiana. Requirements include a Ph.D. degree in plant pathology, plant physiology, or closely related field, with demonstrated scholarly accomplishments, and with outstanding administrative and leadership capabilities or potential. The department head will direct research and teaching programs in plant pathology, plant physiology, and weed science and maintain liaison with the director of the Agricultural Experiment Station, the dean of the College of Agriculture, department heads, agricultural commodity groups, industry, government, and other public groups. Available 1 October 1982. Apply by 1 January 1983 by submitting curriculum vitae and letters of reference from three individuals to: **Chairman of Search Committee, Department of Plant Pathology and Crop Physiology, Louisiana State University, Baton Rouge, Louisiana 70803; telephone: 504-388-1464.** *Louisiana State University and the Louisiana Agricultural Experiment Station are Equal Opportunity/Affirmative Action Employers.*

EXPERIMENTAL AND THEORETICAL POPULATION GENETICIST UNIVERSITY OF WISCONSIN LABORATORY OF GENETICS and PRIMATE RESEARCH CENTER

We seek candidates for a joint position that involves the teaching of population genetics at the graduate level, participation in elementary genetics teaching, and cooperation in research projects on quantitative and population genetics of primates. Candidates should have additional interests of their own in population genetics research. This is an assistant professorship, tenure-track, annual basis. Applications should include curriculum vitae, bibliography, reprints or preprints of two significant publications, and the names and addresses of three references. Send applications by 15 October to:

Professor Seymour Abrahamson, Search Committee Laboratory of Genetics University of Wisconsin-Madison Madison, Wisconsin 53706

The University of Wisconsin-Madison is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOW

Advanced postdoctoral position in Division of Nutrition and Metabolism. Ph.D. sought with documented potential in biomedical research to join established research team studying lipoprotein metabolism in primates. Associated with Brown University, Program in Medicine. Salary commensurate with experience. Please forward résumé to: **Peter N. Herbert, M.D., Director of the Division of Nutrition and Metabolism, The Miriam Hospital, 164 Summit Avenue, Providence, R.I. 02906.** *An Equal Opportunity Employer.*

UNIVERSITY OF ALBERTA DEPARTMENT OF GENETICS

POSTDOCTORAL THEORETICAL POPULATION BIOLOGIST

Research in molecular evolution, population genetics, and evolutionary ecology. Available immediately. Send curriculum vitae and the names of three references to: **Curtis Strobeck, Department of Genetics, University of Alberta, Edmonton, Alberta, Canada T6G 2E9.**

POSTDOCTORAL POSITION available 1 January 1982 in area of eukaryotic DNA replication. Ph.D. or M.D. with expertise in cell and/or molecular biology. Have curriculum vitae and three letters of reference sent to: **Dr. J. L. Hamlin, Department of Biochemistry, University of Virginia School of Medicine, Charlottesville, Va. 22908.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION to study subunit assembly and posttranslational modification of hemoglobin. Experience in protein chemistry is required. Position available October 1982. Salary \$18,000 to \$22,000. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. H. Franklin Bunn, Department of Hematology, Brigham and Women's Hospital, Harvard Medical School, Boston, Mass. 02115.** *Harvard University is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

MICROBIAL BIOLOGIST

The Vassar College Biology Department invites applications for a tenure-track appointment at the associate or assistant professor rank. We seek candidates with proven teaching ability and an active research program. Supplementary areas of interest include molecular genetics, immunology, virology, and microbial ecology. Position available immediately, but starting date is negotiable.

Candidates should submit curriculum vitae which include list of publications and a statement concerning interests and objectives in both teaching and research. Samples of published work should be included and three letters of reference requested. Applications will be reviewed as received. Send materials to:

**Dr. Patricia Johnson, Chairman
Department of Biology
Box 377**

**Vassar College
Poughkeepsie, N.Y. 12601**

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION to study health effects of energy-related pollutants. Training in pulmonary biochemistry, microbiology, or immunology desirable. Send curriculum vitae and names of three references to:

**Dr. James J. McGrath
Department of Physiology
Texas Tech University Health Sciences Center
Lubbock, Texas 79430**

POSTDOCTORAL POSITION available immediately for recent Ph.D. in cell biology or biochemistry to study mechanisms of intestinal membrane transport. Experience in isolation, reconstitution and/or photoaffinity labeling of membranes is desirable. Send curriculum vitae and names of three references to: **Dr. F. A. Wilson, Division of Gastroenterology, The Milton S. Hershey Medical Center, The Pennsylvania State University, Hershey, Pa. 17033.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION GENETICS OF AGING IN *DROSOPHILA*

A position may be available (pending grant funding) beginning 1 January 1983 to join a group investigating the genetic and hormonal regulation of a carboxylesterase in aging *Drosophila*. A research background in molecular genetics, protein chemistry, or molecular biology is desired. Salary will be commensurate with qualifications. Send a résumé and copies of publications and arrange to have three letters of reference sent to: **Dr. Rollin C. Richmond, c/o PDS, Department of Biology, Indiana University, Bloomington, Ind. 47405,** by 18 October 1982. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately to well-qualified individual strongly interested in molecular biology of mitosis (see *Cell* 15, 639; 16, 437; 19, 155; 24, 837). Background in genetics and/or recombinant DNA technology preferred. Salary competitive depending on experience. Send curriculum vitae and names of three references to: **Dr. N. Ronald Morris, Department of Pharmacology, UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY-Rutgers Medical School, P.O. Box 101, Piscataway, New Jersey 08854.** *An Equal Opportunity/Affirmative Action Employer, M/F.*

RESEARCH ASSOCIATES

Three research associate positions available 1 October 1982. Salary: \$13,500.

1) **Forester or Soil Scientist.** Minimum qualifications: M.S. in forestry/soil science or B.S. with at least 3 years of field experience. Supervisory experience and familiarity with northern hardwood ecosystems desirable.

2) **Forest Biometrician.** B.S. or M.S. in forestry with course work and experience in biometrics and statistics. Thorough knowledge of computer programming, statistical packages, and computer graphics is desired.

3) **Soil Microbiologist.** Minimum qualifications: M.S. or B.S. with at least 3 years of experience. Previous experience with *Rhizobium* culture techniques and taxonomy essential. Forest soil background desirable.

For applications and information contact: **Dr. Martin F. Jurgensen, Department of Forestry, Michigan Technological University, Houghton, Mich. 49931.**

Michigan Technological University is an Equal Opportunity Educational Institution/Equal Opportunity Employer.

If you recently received your Ph.D. and would like to do research in a new industrial company which:

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2. maintains close ties to very senior academic consultants; and
3. works on interesting research projects;

then you should investigate a position as a

POSTDOCTORAL SCIENTIST

in

THE SALK INSTITUTE BIOTECHNOLOGY/INDUSTRIAL ASSOCIATES, INC.



SIBIA is a new biotechnology company interested in the whole spectrum of biotechnology and is located in La Jolla, California.

Candidates for this position should have a Ph.D. in molecular and cellular biology, microbiology, or biochemistry. Knowledge of recombinant DNA techniques such as cloning, sequencing, and microinjection are desirable.

Applications, including a curriculum vitae, a statement of research interests and goals, a list of publications, and the names of three professional references should be submitted to:

SIBIA

P.O. Box 85800

Dept. BJG

San Diego, CA 92138

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DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLIC HEALTH SERVICE NATIONAL INSTITUTES OF HEALTH NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

Opening Date: October 1, 1982 Closing Date: November 12, 1982

(All applications must be post-marked by the closing date.)

DIRECTOR...DIVISION OF LUNG DISEASES

The National Heart, Lung, and Blood Institute is recruiting a Director for its Division of Lung Diseases. The Director will coordinate the planning, management, and evaluation of a major program of basic and targeted research, cooperative clinical trials, education and demonstration projects, and national lung centers. The Division itself is divided into six major programs, with a staff of approximately 30 employees and a current annual budget in excess of \$80 million.

This is a Civil Service position in the Senior Executive Service (SES), with base salary from \$54,755 to \$61,300 per year depending on qualification. Currently, the payable salary is limited to \$58,500. Physicians may be eligible for a comparability allowance up to \$10,000 per year. (Alternatively, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service). The SES individual selected, if not presently in the Senior Executive Service, must serve a one year probationary period. Mandatory professional/technical qualifications are a medical degree, or education in biomedical science and research and/or clinical experience in the field of lung diseases. Further information on these qualifications available by contacting Kathryn Osbourn, Personnel Management Specialist, National Institutes of Health, National Heart, Lung, and Blood Institute, Building 31, Room 5A-32, Bethesda, MD 20205, (301) 496-6477.

Mandatory managerial/executive qualifications include evidence of management of a basic or clinical research program, demonstrating ability to assume leadership responsibilities in developing program goals; representing the program to outside groups; directing program planning, execution, and evaluation; and conducting a fair and equitable employment program, including the attainment of EEO objectives.

Candidates who meet the mandatory qualifications will be further evaluated by the Search Committee on the degree to which they exceed the mandatory managerial/executive qualifications, and on the following desirable qualifications: scientific reputation/peer recognition; training and education in lung diseases; leadership of a basic or clinical research, or research administration program, and honors and awards indicative of outstanding contributions to the field of lung diseases.

Applications (Personnel Statement of Qualification—SF-171) should be sent to Dr. Jay Moskowitz, Chairman, DLD Director Search Committee, Building 31, Room 5A03, National Institutes of Health, Bethesda, MD 20205, telephone (301) 496-6331.

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

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EQUAL OPPORTUNITY EMPLOYER.*

U.S. DEPARTMENT OF ENERGY RESEARCH FACILITIES

Energy Related Research Opportunities

Select U.S. Department of Energy (DOE) research facilities invite applications from qualified faculty, postgraduate, graduate, and undergraduate students. Faculty and student appointments are for the summer; postgraduate and graduate student appointments are for one year.

The unique and advanced facilities for research participation and training include the following: Atmospheric Turbulence and Diffusion Laboratory, Oak Ridge Associated Universities, and Oak Ridge National Laboratory, all in Oak Ridge, Tennessee; Bartlesville Energy Technology Center, Bartlesville, Oklahoma; Center for Energy and Environmental Research, Puerto Rico; Morgantown Energy Technology Center, Morgantown, West Virginia; Pittsburgh Energy Technology Center; Pittsburgh Mining Technology Center, Pittsburgh, Pennsylvania; Savannah River Ecology Laboratory and Savannah River Laboratory, both in Aiken, South Carolina.

Information and application materials may be obtained from

**DOE Laboratory-University
Cooperative Programs
University Programs
Oak Ridge
Associated Universities
P.O. Box 117
Oak Ridge, Tennessee 37830**



This is an equal opportunity program open to qualified persons without regard to race, sex, creed, color, handicap, or national origin. The program is open to U.S. citizens and permanent resident aliens.

PLANT GROWTH FACILITY MANAGER

Cetus Madison Corporation, a bioindustrial company focusing on the application of biotechnology to agriculture, is seeking an individual to oversee a plant growth facility that includes both greenhouses (75,000 square feet) and growth chambers. Candidates should have knowledge of plant nutritional needs, solution and solid-support growth, as well as with plant pathogens and their control. Experience with a wide range of plants (particularly crop species) is highly desirable as is the ability to interact productively with scientists having a wide range of backgrounds; mechanical ability is also desired.

Interested applicants should send their resume in confidence to:

**CETUS MADISON CORPORATION
Box SO91
2208 Parview Road
Middleton, Wisconsin 53562**
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employer m/f/handicapped

cetus

POSITIONS OPEN

POSTDOCTORAL POSITION IN NEUROPHYSIOLOGY

New electrophysiological techniques are being applied to studies of synapse formation and synaptic plasticity in networks formed by cultured neurons. Culture dishes with integral microcircuits are being used for extracellular stimulation and recording [*J. Neuroscience Meth.* 2, 19-31 (1980)]. Voltage-sensitive membrane-bound fluorescent dyes will also be used. Background in conventional electrophysiology, developmental neurobiology, or cell culture would be valuable. Position available immediately or no later than January 1983. Please send a short letter, describing research interests, curriculum vitae, and names and addresses of three references to: **Dr. Jerome Pine, 256-48 California Institute of Technology, Pasadena, California 91125.**

POSTDOCTORAL POSITION

A position is available immediately to study the molecular organization of *Xenopus* immunoglobulin genes. The position is initially for 1 year, but will be extended if subsequent funding becomes available. Cloning and DNA sequencing experience is desirable but not essential.

Interested persons should send curriculum vitae and names of three references to: **Dr. Peter J. Stambrook, Department of Anatomy and Cell Biology, University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, Ohio 45267. The University of Cincinnati is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL OR RESEARCH ASSOCIATE. Immediate openings in a project on steroid hormone biosynthesis; areas of focus include P-450 type hydroxylase mechanisms, regulation, and pharmacological control. A background in synthetic organic chemistry, enzyme biochemistry, or cell culture biology is desirable. Send curriculum vitae and names or letters of reference to: **Dr. Larry Vickery, Department of Physiology and Biophysics, University of California, Irvine, Calif. 92717.**

Immediate POSTDOCTORAL RESEARCH FELLOW to study nutritional ecology of marine macroalgae. Field and laboratory experience, computer capability, and scuba diving experience needed. Send résumé and three letters of reference to:

**Elaine Granger, 138-78
California Institute of Technology
Pasadena, Calif. 91125**

RESEARCH ASSOCIATE

Neurophysiologist, Ph.D. preferred, to participate in study of the effects of organochlorines on sleep state organization and in studies of brainstem role in REM sleep and motor control. Experience in LS1-11 programming and single unit recording desirable. Salary: approximately \$19,000 annually. Send curriculum vitae and letters of reference to: **Dr. J. Siegel, Department of Psychiatry, NPI, 760 Westwood Plaza, Los Angeles, Calif. 90024.**

UCLA

Affirmative Action Employer, M/F/H

SENIOR POSTDOCTORAL SCHOLAR IN CANCER RESEARCH. Duties include isolation and characterization of cell specific glycoproteins released by human malignant epithelial cells from the breast. Four years of experience in cancer research required. Salary: \$21,500 per year. Los Angeles area. Reply by résumé no later than 10 October 1982 to: **Number 2039, P.O. Box 865, Sacramento, Calif. 95804.**

**Yale University
Department of Geology and Geophysics**

Applications are solicited for a faculty position in **SOLID EARTH GEOPHYSICS** to begin in the academic year 1983-1984. Areas of interest to the department include seismology, exploration geophysics, mechanical and physical properties of rocks and minerals, geomagnetism, and tectonophysics.

Yale University is an Equal Opportunity/Affirmative Action Employer and encourages women and members of minority groups to compete for this position.

Curriculum vitae, publications, and the names of three or more referees should be sent by 31 December 1982 to: **Karl K. Turekian, Chairman, Department of Geology and Geophysics, P.O. Box 6666, New Haven, Conn. 06511.**

POSITIONS OPEN

Exciting **RESEARCH OPPORTUNITY** in West Germany; partake in studies on **epithelial transport using optical techniques.** Ideal candidate should have M.D. and/or Ph.D. (postdoctorate or junior faculty) and should have experience in using optical techniques to determine solute concentrations in solutions, cells, and on membrane vesicles. In addition to the researcher's salary, this federally funded position includes salary for one technician, start-up funds, and an appropriate supply budget. The research laboratories are part of the Max-Planck-Institut fuer Systemphysiologie in Dortmund, West Germany. Starting date: September 1983. Please send curriculum vitae and references to: **Dr. Rolf Kinne, Director-Elect, Max-Planck-Institut fuer Systemphysiologie,**

**c/o Albert Einstein College of Medicine
Department of Physiology and Biophysics
Room 303U
1300 Morris Park Avenue
Bronx, New York 10461**

Deadline for application: 30 September 1982.

Exciting **RESEARCH OPPORTUNITY** in West Germany; partake in studies on **epithelial and membrane transport using electronprobe analysis.** Ideal candidate should have M.D. and/or Ph.D. (postdoctorate or junior faculty) and should have experience in electronprobe analysis of cells. In addition to the researcher's salary, this federally funded position includes salary for one technician, start-up funds, and an appropriate supply budget. The research laboratories are part of the Max-Planck-Institut fuer Systemphysiologie in Dortmund, West Germany. Starting date: September 1983. Please send curriculum vitae and references to: **Dr. Rolf Kinne, Director-Elect, Max-Planck-Institut fuer Systemphysiologie,**

**c/o Albert Einstein College of Medicine
Department of Physiology and Biophysics
Room 303U
1300 Morris Park Avenue
Bronx, New York 10461**

Deadline for application: 30 September 1982.

Exciting **RESEARCH OPPORTUNITY** in West Germany; partake in studies on **epithelial transport using electrophysiological techniques, including ion selective and substrate selective electrodes.** Ideal candidate should have M.D. and/or Ph.D. (postdoctorate or junior faculty) and should have experience in electrode technology and epithelial transport studies. In addition to the researcher's salary, this federally funded position includes salary for one technician, start-up funds, and an appropriate supply budget. The research laboratories are part of the Max-Planck-Institut fuer Systemphysiologie in Dortmund, West Germany. Starting date: September 1983. Please send curriculum vitae and references to: **Dr. Rolf Kinne, Director-Elect, Max-Planck-Institut fuer Systemphysiologie,**

**c/o Albert Einstein College of Medicine
Department of Physiology and Biophysics
Room 303U
1300 Morris Park Avenue
Bronx, New York 10461**

Deadline for application: 30 September 1982.

RESEARCH POSITION available for Ph.D./M.D. with training in cell membrane biochemistry/physiology/pharmacology. Send curriculum vitae to:

**Dr. David McCarron
Division of Nephrology/Hypertension
Oregon Health Sciences University
Portland, Oregon 97201**

VERTEBRATE ANATOMIST

The Department of Zoology of The Ohio State University invites applications for a tenure-track position at the assistant professor level. Candidates should have a strong background in vertebrate anatomy and will be expected to develop an active research program in experimental vertebrate anatomy. Teaching responsibilities will include participation in general biology, introductory anatomy courses for majors and nonmajors, and developing a course in the person's area of specialization. Applications should include curriculum vitae, copies of recent publications, and the names of three individuals from whom we may request letters of recommendation. Applications will be accepted until 15 November 1982. Send applications to: **Dr. John L. Crites, Chairman, Department of Zoology, The Ohio State University, 1735 Neil Avenue, Columbus, Ohio 43210.**

The Ohio State University is an Affirmative Action/Equal Opportunity Employer.

DEAN

Sackler School of Graduate Biomedical Sciences

Applications and nominations are invited for the position of Dean of the Sackler School of Graduate Biomedical Sciences. The Sackler School draws upon the faculty and resources of a major health science center which includes schools of medicine, dental medicine, veterinary medicine, their associated teaching hospitals and a new federally funded Human Nutrition Research Center.

In addition to administrative responsibility for the Sackler School, the Dean will be expected to participate in the planning and development of multidisciplinary graduate educational and research programs in the biomedical sciences and assist in the management of the basic science departments and programs within a complex organization. The Dean will also be expected to augment public and private financial support for the School.

Successful candidates should have achieved distinction in biomedical research/biomedical research administration and medical education and should be able to bring vision, judgment and leadership to bear as the schools and centers which comprise the health sciences seek the most productive relationships to one another. M.D. and/or Ph.D. in the biological sciences and demonstrated competence in managing a complex organization required.

Send resume and salary history, or nomination before November 1, 1982, to: Search Committee, Office of the Vice President for Health Sciences, Tufts University, 193 Harrison Avenue, Boston, MA 02111. An Affirmative Action/Equal Opportunity Employer.



SR. SCIENTIST Large-Scale Tissue Culture

Genentech, Inc., a recognized leader in recombinant DNA research and manufacturing, is seeking an individual to head its Large-Scale Cell Culture Development and Production Group.

The successful candidate will possess significant industrial experience in the development of pilot and large-scale processes and facilities for mammalian cell culture production. Proven ability as an effective technical manager, the willingness to provide "hands-on" assistance when necessary, and a thorough working knowledge of GMP regulations are required. Candidates should have a PhD or equivalent in the biological sciences as well as relevant experience.

If you qualify and are seeking an opportunity to be part of a multidisciplinary approach to the development of proteins with pharmaceutical applications, we can offer it to you in our challenging R&D environment. For immediate consideration please send your curriculum vitae to **Human Resources**. Please refer to Position #SCI-106.

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Microbiologists/ Molecular Biologists

Two challenging career-oriented positions are presently available in the Infectious Disease Research Section, Medical Research Division of American Cyanamid Company.

The successful candidates will be responsible for initiating new and innovative antimicrobial screening procedures using recombinant DNA methodologies.

Requirements include a Ph.D. in Molecular Biology or Molecular Genetics with at least two years of postdoctoral training and demonstrated skills in recombinant DNA methodology, gene isolation and plasmid and vector manipulation.

American Cyanamid offers competitive salaries, excellent benefits, and a stimulating scientific environment.

Please send resume, including salary requirements, in confidence to: Mrs. K. McDevitt, Professional Employment Coordinator.



American Cyanamid Company
Medical Research Division
Lederle Laboratories
Pearl River, N.Y. 10965

An Equal Opportunity Employer M/F

Theoretical High Energy Physicists

The High Energy Physics Division of Argonne National Laboratory is seeking candidates for staff positions in theoretical elementary particle physics. The Division has substantial activities in both theoretical and experimental high energy physics and wishes to broaden its research program. Other important basic research at the Laboratory includes effort in condensed matter and nuclear physics. Applicants should have a strong record of originality in research. The level of the appointments will be based on qualifications. Applicants are asked to send biographical data, a list of publications, and names of professional references to Dr. E. L. Berger, High Energy Physics Division, Box 101-55, Argonne National Laboratory, Argonne, Illinois 60439. Closing date for applications is December 1, 1982.



An Equal Opportunity/
Affirmative Action Employer

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study roles and behavior of cholesterol in mammalian cell membranes and/or lipid-protein interactions as related to membrane function, using biochemical and biophysical techniques. Candidates should have a strong background in membrane biochemistry and/or biophysical techniques. Send curriculum vitae and three letters of reference to: **Dr. Philip Yeagle, Biochemistry Department, State University of New York at Buffalo, 102 Cary Hall, Buffalo, N.Y. 14214. Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE: Ph.D. or D.Sc. in biology, immunology, or hematology. Duties: Initiate, conduct, and complete independent investigation in cellular immunology, with particular regard to establishment of bone marrow and organ tolerance in lethally irradiated dogs. Knowledge of human and canine immunogenetics is highly recommended. Send résumé to: **Dr. Felix T. Rapaport, Transplantation Service, Department of Surgery, State University of New York (SUNY) Stony Brook, Stony Brook, N.Y. 11794. SUNY Stony Brook is an Equal Opportunity/Affirmative Action Employer. AK number 410B.**

RESEARCH ASSOCIATE, Ph.D., experimental psychology, to participate in development of Beagle model of Fetal Alcohol Syndrome. Research involves developmental study of behavior, especially learning and self-administration of drugs. Position available immediately and funded through January 1984 with possibility of renewal. Forward curriculum vitae and two references to: **Dr. James R. Pick, Division of Laboratory Animal Medicine, University of North Carolina School of Medicine, B-12 Berryhill Hall 219H, Chapel Hill, North Carolina 27514.**

Affirmative Action/Equal Opportunity Employer

VIROLOGIST/VETERINARY VACCINE DEVELOPMENT

ADVANCED GENETICS RESEARCH INSTITUTE (AGRI), a growing San Francisco Bay area biotechnology company, needs skilled B.S./M.S./Ph.D. scientists with comprehensive experience in viral vaccine development. Position requires demonstrated hands-on expertise in virus production, serology and design, conduct, evaluation of immunization/vaccination regimens. Prefer strong immunochemical background, including purification, labeling, and assays for antibodies/antigens. Experience with viral pathogens relevant to veterinary medicine a distinct advantage. Please send résumé to: **Personnel Director, AGRI, 2220 Livingston Street, Oakland, Calif. 14606.**

FELLOWSHIPS

STUDENT RESEARCH FELLOWSHIPS. The School of Forestry and Environmental Studies at Duke University invites applications from superior students for graduate research fellowships in environmental science. Potential research areas: forest and wetlands ecology, water quality modeling, population biology, forest micrometeorology, silviculture, and soil science. Strong background in quantitative methods preferred. Send curriculum vitae to: **Dr. Robert Boyd, School of Forestry and Environmental Studies, Department SA, Duke University, Durham, N.C. 27706. Duke University is an Equal Access Institution.**

POSTDOCTORAL FELLOWSHIP IN BIOCHEMICAL PARASITOLOGY

Postdoctoral fellowship available to study purine and nucleic acid metabolism in leishmania and trypanosomes. Investigation includes metabolic pathways, enzymology, and use of tissue culture to study intracellular organisms. Applicant should have experience in biochemistry, tissue culture, and analytical techniques used in biochemistry laboratory. Please send curriculum vitae to: **J. J. Marr, M.D., Division of Infectious Diseases, Box B-168, University of Colorado Health Sciences Center, 4200 East 9 Avenue, Denver, Colo. 80262. We are an Equal Opportunity/Affirmative Action Employer.**

Myasthenia Gravis Foundation
\$20,000 plus

1983 POSTDOCTORAL FELLOWSHIP for MYASTHENIA GRAVIS RESEARCH

Full-time postdoctoral (M.D./Ph.D.) MG or MG-related research, preceptor supervised; \$20,000 award, plus support services grant (for unavailable equipment) up to \$10,000. Write with reason for applying, curriculum vitae, two sponsor recommendations, proposed program, and requested budget for support services funding by 31 October 1982 to: **Dr. E. Lambert, MG Foundation, 15 East 26 Street, New York, N.Y. 10010.**

FELLOWSHIPS

ECOLOGY. Tinker Foundation Postdoctoral Fellowships in Mesoamerican Ecology. Tulane University. At least one postdoctoral fellowship in the natural or social sciences for scholars with an interest in the ecology of Mesoamerica. Applicants should be citizens of the United States, Mexico, or Central America. Submit a brief statement of research plans, curriculum vitae, and names of three references. Recipients ordinarily devote several months to fieldwork, followed by a period of 1 to 2 weeks on campus during which time they discuss their findings in a seminar setting. Fellowships are awarded in amounts up to \$10,000, depending upon extent and duration of research project. Deadline for application: 1 November 1982. **Mesoamerican Ecology Institute, Center for Latin American Studies, Tulane University, New Orleans, La. 70118. Equal Opportunity/Affirmative Action Employer.**

AWARD

The eighth International St. Vincent Prize for the Biomedical Sciences, jointly sponsored by the World Health Organization, UNESCO, and the President of the Italian Republic, will be awarded in fall 1983. The recipient of this prestigious award will be selected by a panel of 57 judges from throughout the world and will receive 50,000,000 lire. Applicants should send curriculum vitae and a letter highlighting major accomplishments by 30 September 1982 to: **Liborio Tranchida, M.D., Associate Professor, Wayne State University, Vice-Chief of Medicine, Harper Hospital, 3990 John R., Detroit, Michigan 48201.**

PROGRAMS

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a doctor of optometry (O.D.) degree in 2 calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **The Dean of Admissions, The New England College of Optometry, Room 901, 424 Beacon Street, Boston, Mass. 02115.**

POSTDOCTORAL TRAINING PROGRAM IN IMMUNOLOGY

Comprehensive postdoctoral-level training in all branches of immunology and immunogenetics is available through the Division of Immunology at Duke University Medical Center. This training includes HLA, lymphokines, monoclonal antibodies, macrophages, T and B cell subsets, and functions and applications of advanced biochemical techniques such as 2D and HPLC blotting. Fellowships are open to American citizens and foreign nationals with permanent resident visas holding the Ph.D., M.D., or equivalent degrees who have had less than 3 years of postdoctoral experience. Send letters of inquiry to: **Dr. E. G. Reisner, Box 3010, Duke University Medical Center, Durham, North Carolina 27710. An Equal Opportunity/Affirmative Action Employer.**

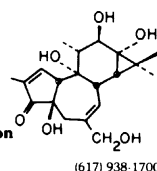
MARKETPLACE

WANTED: Used Anim Hush/Diet Prep Equipment:
Large Cage/Rack Washer, Large Double Door Autoclave, 3 cu. ft. Mixer, Bedding Dispenser, Sizer and grinder

Contact: Karl P. Baetcke, Ph.D., Intox Laboratories, Inc., P.O. Box 3397 (501/374-1296) Little Rock, AR 72203

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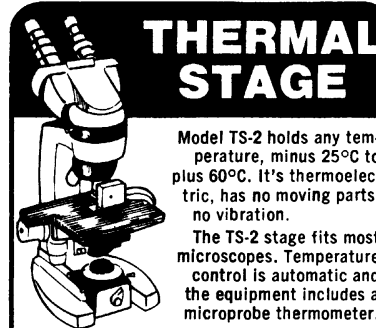


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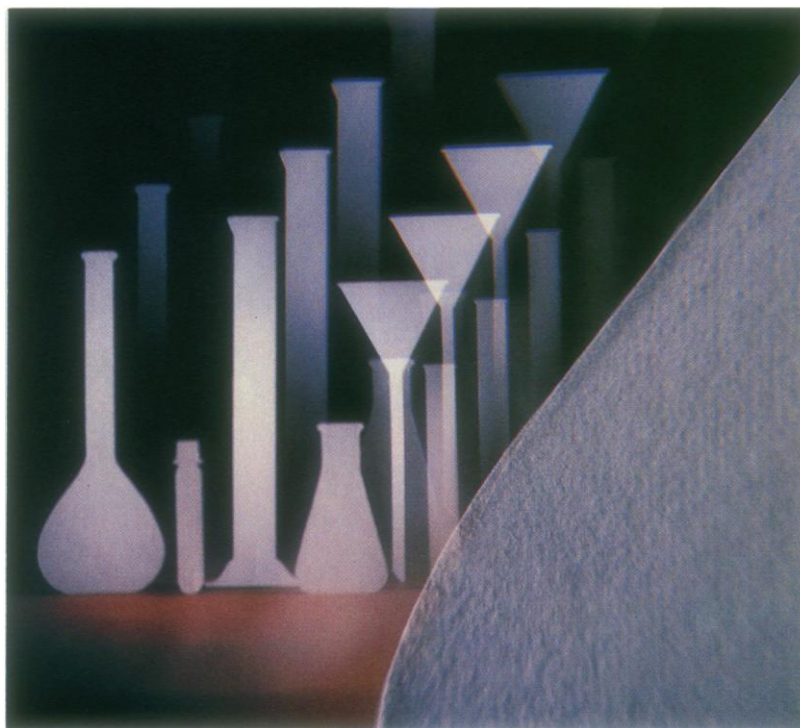
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