

They have extremely diverse oxygenative capabilities and may provide one of the primary routes for oxygenation in bacteria. They all seem to employ two-iron, two-sulfur structures at the active site and also require ferrous ion to catalyze the oxygenations. It is curious that this active site can catalyze both mono- and dioxygenations. The bacterial enzymes have high turnover numbers and take part in reactions typical of P-450 systems, monooxygenases largely found in eukaryotes.

Other papers cover various heme proteins, including P-450, peroxidases, heme oxygenases, and indoleamine oxygenases. Bleomycin and its oxygenase activity on DNA are covered, as are regulation and mechanistic studies for the pterin-requiring phenylalanine monooxygenases.

This collection of timely, generally high-quality papers should be of interest to a broad audience of biochemists.

DAVID P. BALLOU

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Mathematical Ecology

Stability of Biological Communities. YU. M. SVIREZHEV and D. O. LOGOFET. Translated from the Russian edition (Moscow, 1978) by Alexei Voinov. Mir, Moscow, 1983 (U.S. distributor, Imported Publications, Chicago). 320 pp., illus. \$9.95.

Svirezhev and Logofet are, respectively, head of and researcher in the Mathematical Ecology Laboratory of the Computer Center of the U.S.S.R. Academy of Sciences. In this book, which is revised from the original 1978 Russian edition, they "attempt to convert ecological modeling from an art into a science based on powerful mathematical techniques developed lately and, in particular, on the well advanced stability theory for dynamic systems." The general layout and tone of the book are squarely in the idiom of Russian applied mathematics texts; to a monoglot like myself, casual inspection cannot distinguish the Russian edition from similar texts on fluid mechanics, astrophysics, or electrical engineering.

The book is useful as an encyclopedic collection of analytic results for the dynamical behavior of a variety of models for single populations, for species interacting as predators and prey or as competitors, and for "ecosystem" assemblages of species. The material is orga-

nized well and the translation is adequate (since much of the text is mathematics, the connective tissue of prose is less important than might otherwise be the case). The annotated bibliographies at the end of each of the nine chapters are helpful and fairly comprehensive up to 1977; after this they are very spotty. The authors' habit of reproducing large chunks of material, including figures, without acknowledgment (except in very general terms in the bibliography: "The reasoning in this section follows X") would be frowned on if practiced by an undergraduate at Princeton.

Although most of the book covers familiar ground, there are some interesting studies previously published only in Russian. Sections 1.6 and 1.7 sketch results for the average lifetimes of populations affected by various kinds of random perturbations (a topic subsequently explored more thoroughly by Turelli). Section 3.10 outlines the way parametric resonances can be excited in predator-prey systems by random environmental variations. Chapter 5 contains some interesting ideas about communities with vertical structure and the stability properties of the consequent linear trophic chains (in both open and closed systems).

The material recapitulated in this book is useful to anyone planning an applied mathematics course and seeking good mathematical problems that bear some metaphorical relation to ecology. But as a step along the road toward transforming the modeling of real ecosystems from an art into a science I find the book unsatisfying in at least two ways.

First, the structure of, and predictions from, the models are related to data in the most perfunctory way, if at all. The entire book contains only five figures or tables with data (and only two of these are related in a concrete way to the model under discussion).

Second, too much attention is given to elegant mathematical results simply because they are elegant. Thus, for example, section 6.6 presents a detailed account of some nice tricks whereby contour integrals can be used to evaluate the minimum eigenvalue of a competition matrix. Although I yield to none in admiration of this result (it is mine), by 1978 it was clear that the model is, in several respects, too special to be generally useful; Svirezhev and Logofet cite some of the relevant works of criticism in their bibliography, but in the text they express no reservations about this or other mathematical models for limits to niche overlap. I think that an understanding of how an ecosystem works, and how it will

respond to a specified disturbance, requires many kinds of carefully documented observations about natural history, and thoughtfully designed experiments in the field. Mathematical models can be useful in helping to form testable ideas about which of the myriad complications play an essential role and which do not. If these models lead to beautiful mathematics (as do "chaotic" difference equations), that is a pleasing fringe benefit. Simplicity and elegance cannot, however, serve as a guide to truth in ecology, as arguably they sometimes do in physics.

ROBERT M. MAY

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Reprints of Books

Previously Reviewed in *Science*

The Evolution of Culture in Animals. John Tyler Bonner. Princeton University Press, Princeton, N.J., 1983. Paper, \$9.95. *Reviewed* 209, 487 (1980).

The Foundations of Newton's Alchemy or "The Hunting of the Greene Lyon." Betty Jo Teeter Dobbs. Cambridge University Press, New York, 1983. Paper, \$16.95. *Reviewed* 192, 689 (1976).

Looking Far North. The Harriman Expedition to Alaska, 1899. William H. Goetzman and Kay Sloan. Princeton University Press, Princeton, N.J., 1983. Paper, \$8.95. *Reviewed* 218, 1109 (1982).

Polywater. Felix Franks. MIT Press, Cambridge, Mass., 1983. Paper, \$5.95. *Reviewed* 213, 1104 (1981).

Studies in Business-Cycle Theory. Robert E. Lucas, Jr. MIT Press, Cambridge, Mass., 1983. Paper, \$9.95. *Reviewed* 216, 859 (1982).

Thomas Alva Edison. An American Myth. Wyn Wachhorst. MIT Press, Cambridge, Mass., 1983. Paper, \$8.95. *Reviewed* 216, 289 (1982).

Books Received

Advances in Magnetic Resonance. Vol. 10. John S. Waugh, Ed. Academic Press, New York, 1982. xii, 224 pp., illus. \$35.

Advances in Non-Impact Printing Technologies for Computer and Office Applications. Proceedings of a congress, Venice, June 1981. Joseph Gaynor, Ed. Van Nostrand Reinhold, New York, 1983. xxxii, 1382 pp., illus. \$75.

Advances in Pharmacology and Chemotherapy. Vol. 19. Silvio Garattini, A. Goldin, F. Hawking, and I. J. Kopin, Eds. Academic Press, New York, 1983. x, 294 pp. \$49.50.

The Kinki Integrated Regional Development Program. Y. Sawaragi and A. Straszak, Eds. International Institute for Applied Systems Analysis, Laxenburg, Austria, 1982. viii, 410 pp., illus. Paper, \$18.50. IIASA Collaborative Proceedings Series, CP-82-S10.

Manual of Physical Status and Performance in Childhood. Alex F. Roche and Robert M. Malina. Plenum, New York, 1983. Three volumes. Vols. 1A and 1B, Physical Status. xvi, 1440 pp. \$137. Vol. 2, Physical Performance. x, 804 pp. \$137.

Quetzalcoatl and the Irony of Empire. Myths and Prophecies in the Aztec Tradition. David Carrasco. University of Chicago Press, Chicago, 1983. xii, 234 pp., illus. \$20.

Rationality and Ritual. The Windscale Inquiry and Nuclear Decisions in Britain. Brian Wynne. British Society for the History of Science, Chalfont St Giles, Bucks., England, 1982. x, 222 pp. Paper, \$13.50. BSHS Monographs, 3.

A Year in the Beeyard. Roger A. Morse. Scribner, New York, 1983. x, 166 pp., illus. \$14.95.

The Year of the Phoenix. Not a Novel. T. K. Mahadevan. World Without War Publications, Chicago, 1983. xvi, 200 pp. Paper, \$5.

(Continued from page 541)

brook Institute of Science's 8-day "Up With Science" program where AAAS volunteers and other local scientists and engineers conducted demonstrations and led discussion groups. AAAS members also took part in a Michigan legislative hearing on education and a program, sponsored by the American Association of University Women, to encourage girls to get interested in math and science.

Members in the San Francisco and Portland areas will be contacted by the AAAS Office of Public Sector Programs regarding their interest in working with local science museums.

Obituaries

D. Murray Angevine of Madison, Wisconsin, member of Section N since 1978, 8 February 1983.

Chuck Aston of Palm Desert, California, member of Section E since 1973, 11 April 1983.

Horace S. Dean of Lake Wales, Florida, member of Section G since 1925, 16 February 1983.

Paul N. Harris of Indianapolis, Indiana, member of Section N since 1931, 24 April 1983.

Joel Hildebrand, professor of chemistry, University of California, Berkeley, member of Section C since 1913, 30 April 1983.

Walter Hook of Oakland, California, member of Section H since 1967, 21 February 1983.

Anthony J. Hornfeck of Beloit, Ohio, member of Section M since 1950, 1 February 1983.

Meyer M. Melicow of New York City, member since 1947, 3 June 1983.

Robert E. Prytula, Psychology Department, Middle Tennessee State University, member of Section J since 1975, 11 February 1983.

Carleton Roberts, professor emeritus, polymer and textile chemistry, Clemson University, member of Section C since 1948, 18 March 1983.

A. J. Speece, Jr., of Denton, Texas, member of Section G since 1954, 18 February 1983.

Aaron Stein of New York City, member of Section N since 1949, 1 June 1983.

Cynthia Westcott of Croton-on-Hudson, New York, member of Section G since 1924, 22 March 1983.

Fred A. Yeoman of Sequim, Washington, member of Section C since 1960, 11 February 1983.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference.

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2 September issue (mailed 26 August): **12 August**
9 September issue (mailed 2 September): **19 August**
16 September issue (mailed 9 September): **26 August**

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1515 Broadway
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Washington, D.C. 20005

POSITIONS WANTED

Biochemist (B.S. Illinois, 1978) seeks graduate or teaching assistantship; very broad research background; outstanding references. C. P. McAttee, P.O. Box 168, Mt. Vernon, Illinois 62864. 8/5, 12

Cell Biologist. Ph.D. Experience in surface membrane, cell interaction, and differentiation. Techniques: tissue culture, protein purification, immunology, and electron microscopy. Seeks academic research or industrial position. No geographical preference. Available fall 1983. Box 205, SCIENCE. X

Environmental Planner. B.S. in biology. M.Sc. in environmental studies; seeks position as planner or technician with applied research in ecology. Skills: vegetation analysis, environmental assessment. Box 200, SCIENCE. X

Enzymologist/Molecular Biologist. Ph.D. with 2 years of postdoctoral work. Experienced in protein purification, recombinant DNA technology, tissue culture, and immunology. Seeks an industrial or research position within the greater New York area. Box 203, SCIENCE. 8/5, 12, 19

Immunochemist. Ph.D.; 10 years of immunodiagnostic R & D with patents, publication; 4 years of college teaching; 4 years of postdoctoral work with publications in immunochemistry; 3 years of immunology of autoimmune diseases with publication. Seeks position with industry or any other employer. Salary negotiable; will relocate. Box 208, SCIENCE. X

Microbiologist/Electron Microscopist. Ph.D. Nine years of undergraduate and professional school experience. Variety of publications. Seeking research/teaching position in academic or industrial institution. Box 198, SCIENCE. 8/5, 12, 19

Pharmacologist. Ph.D. with experience in biochemical pharmacology; fluent in English, French, and Spanish. Seeks position in industry or academia. Box 206, SCIENCE. X

POSITIONS OPEN

ANATOMY ASSISTANT PROFESSOR

Team-teaching gross anatomy. Current research interests of department include islet endocrinology, autonomic nervous system and reproductive endocrinology, hypothalamo-hypophyseal-ovarian axis, mammalian pineal gland, and chemically-coded circuitry underlying CNS regulation and synergistic functioning of the neuroendocrine and autonomic systems. Preference given to U.S. citizens with Ph.D. in anatomy. Send curriculum vitae and names of three references to:

Carl R. Morgan, Ph.D.
Department of Anatomy
School of Medicine
East Carolina University
Greenville, N.C. 27834

Application deadline: 30 September 1983. *An Equal Opportunity thru Affirmative Action Employer.*

ANESTHESIOLOGY—ASSISTANT ASSOCIATE PROFESSOR

The Department of Anesthesiology, University of Nebraska College of Medicine, invites applications from qualified individuals with commitments to excellence in research to coordinate the department's research activities. The successful candidate must have a Ph.D. and/or M.D. degree(s) and will be expected to establish an independent research program. Teaching of medical and graduate students will be required. A strong background in cardiopulmonary physiology/pharmacology or neurosciences is essential. New laboratory facilities will be available together with startup funds and departmental support. Inquiries, including curriculum vitae, career objectives, and names of three references, should be submitted to: **Dr. Jan D. Smith, Chairman, Department of Anesthesiology, University of Nebraska College of Medicine, 42nd and Dewey Avenue, Omaha, Neb. 68105. University of Nebraska is an Equal Opportunity/Affirmative Action Employer.**

One full-time position as **ASSISTANT ADJUNCT PROFESSOR** in the Obstetrics/Gynecology Department, Division of Reproductive Biology and Medicine, School of Medicine, Davis, California. Biostatistics or biomathematics Ph.D. required.

Responsibilities include initiating biostatistical analysis of a variety of data concerning reproduction and fertility, including use of survival analysis for predicting fertility.

Applications not accepted after 31 August 1983. Send curriculum vitae and two references to: **Dr. David F. Katz, Reproductive Biology and Medicine, Suber House, University of California, Davis, Calif. 95616.**

The University of California, Davis, School of Medicine, is an Equal Opportunity/Affirmative Action Employer.

YALE UNIVERSITY DEPARTMENT OF MOLECULAR BIOPHYSICS AND BIOCHEMISTRY ASSISTANT PROFESSOR

Faculty positions are available at the rank of assistant professor, with a 5-year initial appointment beginning January 1984 or July 1984. The department is seeking the most talented individuals it can find, irrespective of their particular area of interest in molecular biology, biochemistry, or molecular biophysics. Successful candidates will participate in the normal departmental teaching responsibilities as well as conduct an active research program. *Yale is an Equal Opportunity Employer and applications from women and minority groups are encouraged.* The application deadline is 15 November 1983.

Send curriculum vitae, list of publications, names and addresses of three references, and a summary of research interests to: **Professor Thomas A. Steitz, Chairman, Faculty Search Committee, Department of Molecular Biophysics and Biochemistry, Yale University, P.O. Box 6666, New Haven, Conn. 06511.**

BACTERIOLOGIST—For research position in vaccine development. M.S. in microbiology, 2 to 3 years of research experience in veterinary microbiology. Good salary, excellent benefit package. Send résumé, in confidence, to:

Personnel Department
WELLCOME ANIMAL HEALTH DIVISION
BURROUGHS WELLCOME CO.
P.O. Box 167
Kansas City, Mo. 64141

Equal Opportunity Employer, M/F

POSITIONS OPEN

Assistant Professor

We are seeking applicants with primary research interests in the organic chemistry of biologically-active materials, with an emphasis on substances of natural origin. Candidates having supplementary interests in the area of molecular mechanisms of drug action would be preferred. Responsibilities include participation in departmental teaching for medical and graduate student training. Inquiries, which should include curriculum vitae, synopsis of current research interests, list of publications, reprints of selected publications, and the names of five referees, should be sent to: **Dr. Francis Johnson, Chairman, Faculty Search Committee, Department of Pharmacological Sciences, School of Medicine, Health Sciences Center, State University of New York (SUNY) at Stony Brook, Stony Brook, N.Y. 11794. SUNY Stony Brook is an Equal Opportunity/Affirmative Action Employer. AK 662B.**

ASSISTANT PROFESSOR—ANATOMY. Requirements: Ph.D. or M.D. with a strong commitment to research. Background in cell or molecular biology or neurobiology is preferred. Send curriculum vitae and the names of two references to: **T. Barka, Professor and Chairman, THE MOUNT SINAI SCHOOL OF MEDICINE OF THE CITY UNIVERSITY OF NEW YORK, One Gustave L. Levy Place, New York, N.Y. 10029. An Equal Opportunity Employer.**

ASSISTANT PROFESSOR—DEPARTMENT OF BIOCHEMISTRY. The department invites applications from highly qualified persons without regard to area of research interest in the field of biochemistry. The department is a basic science department with responsibilities for research and teaching of medical, dental, and graduate students. Faculty members are expected to develop a strong, independent research program. Applications from candidates should be received no later than 1 September 1983. Interested individuals should send the following information to: **Dr. Norbert I. Swislocki, Professor and Chairman, Department of Biochemistry, UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY—New Jersey Medical School, 100 Bergen Street, Newark, New Jersey 07103.** (i) Complete curriculum vitae and bibliography, (ii) three letters of recommendation supporting research and teaching ability, (iii) a brief description of future research plans, and (iv) reprints of most significant work. *An Equal Opportunity/Affirmative Action Employer, M/F.*

ASSISTANT PROFESSOR OF BIOLOGICAL OCEANOGRAPHY

Applications are invited for a tenurable position at the assistant professor level with 9-month salary funding commensurate with experience and qualifications. Applicants must hold a Ph.D. degree and have demonstrated excellence and independence in research in quantitative aspects of marine ecology, particularly population dynamics. Although experience in marine studies is preferred, other ecologists willing to make the transition are encouraged to apply. Applicant will be expected to develop a vigorous grant-supported research program, to teach mathematically rigorous graduate-level courses, including population dynamics and demography, and to supervise graduate students in the Ph.D. program. Deadline for receipt of applications: 15 September 1983. Send curriculum vitae, including statement of research interests and names of three references, to: **Chairman, Graduate Department, A-008, Scripps Institution of Oceanography, University of California, San Diego, La Jolla, Calif. 92093. An Equal Opportunity/Affirmative Action Employer.**

ASSISTANT OR ASSOCIATE PROFESSOR OF BIOMEDICAL ENGINEERING.—Applications are sought for a tenure-track position at the assistant or associate professor level. Requirements include a Ph.D., M.D., D.M.D., or equivalent with specific interest in biomaterials education and research and evidence of success in obtaining extramural funding. Responsibilities will include graduate program course development, supervision of graduate student research, and active pursuit of independent basic science and applied research. Experience in biomedical polymers, biocompatibility, biomechanics, and disposable plastics for medical applications is essential. Applicants please submit curriculum vitae and a summary of current and future research by 5 September 1983 to: **Dr. L. C. Sheppard, Chairman, Department of Biomedical Engineering, University of Alabama in Birmingham, University Station, Birmingham, Ala. 35294.**

POSITIONS OPEN

ASSISTANT PROFESSOR, ENDOCRINE/REPRODUCTIVE PHYSIOLOGY

State-funded, tenure-track faculty position available in the Department of Physiology, University of Arizona, College of Medicine. Consideration will be limited to applicants with research interest in reproductive endocrinology and physiology. Major responsibilities will be development of an active research program in reproduction and participation in departmental courses in human, cell, and/or reproductive physiology. Interest and ability in teaching students, as well as research potential, will be considered in evaluating applicants. Ph.D. or M.D. degree or equivalent and postdoctoral training are prerequisite. Send summary of research plans, curriculum vitae, and names of three references to: **Dr. Paul C. Johnson, Professor and Head, Department of Physiology, College of Medicine, University of Arizona, Tucson, Ariz. 85724, by 1 October 1983. The University of Arizona is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT OR ASSOCIATE PROFESSOR OF IMMUNOLOGY, Department of Cancer Biology, Harvard School of Public Health. Applicants should be interested in some aspect of tumor immunology and have broad competence in immunobiology. The individual should have an M.D. and/or Ph.D. degree and proven ability to conduct independent research. Responsibilities may include the organization of a graduate-level course in immunology and the supervision of doctoral candidates. Please send curriculum vitae, list of publications, and names of references to: **Dr. M. Essex, Chairman, Department of Cancer Biology, Harvard School of Public Health, 665 Huntington Avenue, Boston, Mass. 02115. Harvard University is an Equal Opportunity Employer with an Affirmative Action Program.**

The Department of Microbiology at the Dartmouth Medical School invites applications from candidates for a tenure-track appointment at the **ASSISTANT PROFESSOR** level. The individual to be appointed should have a Ph.D. and postdoctoral training in immunology and will be expected to establish a strong research program and to participate in the teaching of immunology to medical and graduate students. Although the best-qualified individual will be selected regardless of research interest, candidates with experience in and an orientation toward molecular biology are particularly encouraged to apply. We plan to begin this appointment in the summer of 1984. Qualified individuals should send their résumés, summaries of present and proposed research, and the names of three references to: **Dr. M. W. Fanger, the Department of Microbiology, The Dartmouth Medical School, Hanover, N.H. 03756. The Dartmouth Medical School is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR—MOLECULAR NEUROBIOLOGY

The Section of Molecular Neurobiology, Yale University School of Medicine, invites applications for several starting-level assistant professorships. Applicants should have training in neurobiology and should be expert in single-channel recording and/or molecular biological methodology. Those just finishing a postdoctoral fellowship are preferred, and a joint M.D./Ph.D. degree is desirable. To apply, send curriculum vitae, statement of research interests, and two letters of recommendation before 15 September 1983 to: **Dr. Charles F. Stevens, Chairman, Section of Molecular Neurobiology, Yale University School of Medicine, 333 Cedar Street, New Haven, Conn. 06510. Yale University is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are encouraged to apply.**

CHAIRMAN, DEPARTMENT OF PHARMACOLOGY

The Yale University School of Medicine invites applications and nominations for the position of **professor and chairman** of the Department of Pharmacology. Candidate must be a nationally recognized leader in the field and have proven ability as a scientist, teacher, and administrator. Appointment is to be effective in 1984.

Applications should be submitted prior to 30 September 1983. *Yale University is an Equal Opportunity/Affirmative Action Employer. Women and minority group members are encouraged to apply.*

Curriculum vitae and bibliography should be sent to the chairman of the Search Committee: **Dr. Nicholas M. Greene, Room 1E 44 SHM, Yale University School of Medicine, 333 Cedar Street, P.O. Box 3333, New Haven, Conn. 06510.**

DIRECTOR

CENTER FOR ENERGY POLICY RESEARCH RESOURCES FOR THE FUTURE

Resources for the Future (RFF), a nonprofit, nonadvocacy organization for research and education, seeks a director for its Center for Energy Policy Research to begin fall 1983. Founded in 1952, RFF conducts interdisciplinary programs in energy, natural resources, and environmental quality. The Center for Energy Policy Research is responsible for RFF's work on energy and minerals.

The director of the Center has the following responsibilities:

- To provide leadership in the planning and conduct of the program,
- To cooperate with the president, vice president, director of institutional relations, and project leaders in marshaling resources, and
- To discharge other administrative functions, such as budget and proposal preparation, financial and personnel management, and review of manuscripts.

The director provides leadership for approximately 20 professionals and associated support staff and will also have the title of senior fellow. The director will have the opportunity to engage in research and other scholarly activity.

RFF wishes to continue its long tradition of leadership in energy and minerals economics and policy. Related studies of industry and technology will be considered.

Applicants should send a letter and résumé to: **Emergy N. Castle, President, Resources for the Future, Box C, 1755 Massachusetts Avenue, NW, Washington, D.C., 20036.** Nominations also are welcome, providing they are accompanied by a résumé of the nominee. Applications and nominations must be received on or before 6 September 1983.

Resources for the Future is an Equal Opportunity Employer. Women and minority candidates are encouraged to apply.

TUFTS UNIVERSITY School of Nutrition

HENRY LUCE PROFESSORSHIP IN AGRICULTURAL PRODUCTION AND SOCIETY

The Tufts University School of Nutrition invites applications and nominations for the Henry Luce Professorship in Agricultural Production and Society.

The appointee to this non-tenured 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 agricultural 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, 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 November 1, 1983 to:

**Stanley N. Gershoff, Ph.D., Dean
School of Nutrition
Tufts University
Medford, MA 02155**

Tufts University is an Equal Opportunity/Affirmative Action Employer.

SEARCH REOPENED

POSITIONS OPEN

ASSISTANT PROFESSOR OF PHARMACOLOGY

The department invites applications for two tenure-track positions from candidates with postdoctoral training who have an innovative program of research. Candidates must be highly talented and (i) have a clearly defined long-term independent research program that can be funded at the national level; (ii) they should preferably, but not necessarily, have expertise in cellular and molecular approaches to fundamental problems of pharmacological interest; and (iii) they should be capable of making significant contributions to the overall teaching program of the department. Particular areas of preference include studies on stimulus secretion coupling, pharmacology of immune and inflammatory responses, central nervous system pharmacology, anticancer pharmacology, the structure of membrane proteins, and the study of drugs which influence transport processes.

Send curriculum vitae, a statement of research interest, and the names of three references to: **Dr. James D. Potter, Chairman, Department of Pharmacology (R-189), University of Miami School of Medicine, P.O. Box 016189, Miami, Florida 33101.**

An Equal Opportunity/Affirmative Action Employer

ASSISTANT PROFESSOR OF PHYSIOLOGY. Tenure-track position open September 1983. Ph.D. with background in endocrinology and neuromuscular physiology. Competency and interest in teaching health care professional students essential. Research facilities are limited but research will be encouraged. Send curriculum vitae and three letters of reference to: **Dr. M. Brown, Chair, Department of Physiology, Life Chiropractic College, 1269 Barclay Circle, Marietta, Ga. 30060.**

The Department of Veterinary Pathobiology, University of Minnesota, College of Veterinary Medicine, invites nominations and applications for an **ASSISTANT PROFESSOR** position in **veterinary clinical pathology**. The successful candidate will contribute to teaching clinical pathology in our clinical and didactic programs for professional students (D.V.M.) and graduate programs with emphasis in the area of clinical chemistry. Duties include development of a funded research program and supervision of graduate students. The D.V.M. or V.M.D. and Ph.D. degree, teaching experience, and eligibility for Minnesota licensure are required. Salary is negotiable depending upon training and experience. Nominations or applications with current curriculum vitae and names of three references should be sent by 1 November 1983 to: **Dr. David Hayden, Department of Veterinary Pathobiology (G), College of Veterinary Medicine, University of Minnesota, 1971 Commonwealth Avenue, St. Paul, Minn. 55108. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.**

ASSISTANT RESEARCH SCIENTIST. NIH-supported work on the ocular physiology and pharmacology of the eye related to carbonic anhydrase chemistry. Ph.D. and experience in relevant anatomy and biochemistry required. Salary: \$15,000 minimum; maximum negotiable. Position available 23 September 1983. Forward applications to: **Dr. Thomas H. Maren, Department of Pharmacology, Box J-267, JHMC, University of Florida College of Medicine, Gainesville, Fla. 32610, by 18 August 1983. An Equal Opportunity/Affirmative Action Employer.**

BIOCHEMIST: Postdoctoral position available immediately for Ph.D. experienced in membranology or protein biochemistry with interest in studies on the mechanisms and components of transport systems for folate compounds and antifolate drugs. Send curriculum vitae with the names of three references to: **Dr. Gary B. Henderson, Department of Basic and Clinical Research, Research Institute of Scripps Clinic, La Jolla, California 92037.**

BIOCHEMISTS: Positions are available for postdoctoral research associates to work in three areas: the biochemistry of membrane proteins; the development of photochemical reagents; and new methods of drug delivery. Please send your curriculum vitae and the names of two referees to: **Dr. Hagan Bayley, Department of Biochemistry, College of Physicians & Surgeons, Columbia University, 630 West 168 Street, New York, N.Y. 10032.**

Columbia University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

BIOCHEMISTRY—FACULTY POSITIONS. Applications are invited for tenure-track appointments to the rank of assistant or associate professor of biochemistry at the Albany Medical College. Preference will be given to candidates with research experience in contemporary molecular biology, especially recombinant DNA techniques, although scientists qualified in other areas of biochemistry will also be given serious consideration. Current major foci of research interests in the department include molecular endocrinology, complex carbohydrates and glycolipids, protein chemistry, neurochemistry, and enzymology. A commitment to excellence in teaching medical and graduate students as well as evidence of accomplishment or scientific potential is required. The Albany area offers the advantages of a cosmopolitan life-style in a suburban-rural setting. Starting date is open. If interested, please forward curriculum vitae, outline of research interests, names of three references, and indication of when available, to: **Dr. Leo E. Reichert, Professor and Chairman, Department of Biochemistry, Albany Medical College of Union University, Albany, New York 12208.**

BIOCHEMISTRY/BIOPHYSICS FACULTY POSITIONS UNIVERSITY OF ARIZONA

The University Department of Biochemistry and Biophysics is seeking two tenure-track faculty members. The prime criterion for appointment will be demonstrated (or potential for) excellence in research and teaching. At least one of the appointments will probably be at the assistant professor level; among equally qualified candidates, the areas of biophysics and nucleic acid biochemistry will be preferred.

Candidates should send curriculum vitae, a one- or two-page summary of future research plans, and three letters of recommendation to: **Dr. John W. Little, Search Committee, University Department of Biochemistry and Biophysics, Biosciences West, University of Arizona, Tucson, Ariz. 85721.** Deadline for applications is 30 September 1983. *An Equal Opportunity/Affirmative Action Employer.*

BIOLOGICAL OCEANOGRAPHER. For participation and coordination of research activities in sub-tropical phytoplankton ecology. Minimum qualifications: Ph.D. in oceanography; demonstrated field and analytical experience in phytoplankton ecology. Minimum of 1-year contract, effective immediately. Salary commensurate with experience. Send résumé to: **Nancy Roberts, Oceanic Institute, Makapuu Point, Waimanalo, Hawaii 96795.** Telephone: inquiries: 808-259-7951.

CHIEF, OCEAN SERVICES DIVISION

The National Oceanic and Atmospheric Administration (NOAA) announces Senior Executive Service Vacancy for Chief, Ocean Services Division, Office of Oceanography and Marine Services, National Ocean Service (NOS), located in Rockville, Maryland. Duties include providing scientific and technical leadership in the management, development, and execution of major programs in oceanography and related disciplines. Pay rate for this SES position commensurate with background and experience; current salary range: \$56,945 to \$67,200 per annum. Apply to: **NOAA/NOS, 6001 Executive Boulevard, Rockville, Maryland 20852, attention: AT/PER15DH.** Standard Form 171—Personal Qualifications Statement must be received by 19 August 1983 to be considered. *Equal Opportunity Employer.*

CHIEF, OCEAN RESOURCES ASSESSMENT DIVISION

The National Oceanic and Atmospheric Administration (NOAA) announces Senior Executive Service Vacancy for Chief, Ocean Resources Assessment Division, Office of Oceanography and Marine Services, National Ocean Service (NOS). Location in Rockville, Maryland. Duties include providing scientific and technical leadership in the management, development, and execution of major programs in oceanography and related sciences including ocean waste disposal, offshore oil and gas operations, marine transportation, and deepwater ports. Pay rate for this SES position commensurate with background and experience; current salary range: \$56,945 to \$67,200 per annum. Apply to: **NOAA/NOS, 6001 Executive Boulevard, Rockville, Maryland 20852, attention: AT/PER15LT.** Standard Form 171—Personal Qualifications Statement must be received by 19 August 1983 to be considered. *Equal Opportunity Employer.*

POSITIONS OPEN

CARCINOGENESIS RESEARCH ASSOCIATE. Investigate the mode of action of tumor promoters. Research involves promoter receptor isolation and characterization and elucidation of gene activation by promoting substances. Strong biochemistry and cell biology background and interest in genetic toxicology desirable. Temporary, not to exceed 2 years. Salary: \$24,508 per annum. Send résumé and references by 20 August 1983 to: **Dr. D. L. Berry, U.S. Department of Agriculture, Western Regional Research Center, 800 Buchanan Street, Berkeley, Calif. 94710.** *An Equal Opportunity/Affirmative Action Employer.*

CHAIRPERSON

DEPARTMENT OF ANATOMY

The Oregon Health Sciences University invites applications and nominations for the position of **chairperson** of its Department of Anatomy in the College of Medicine. The candidate should possess the Ph.D. and/or M.D. degree, have an outstanding record of accomplishment in research, a commitment to both medical and graduate education, and the ability to administer a comprehensive academic program.

Interested individuals should send curriculum vitae and the names and addresses of three references to:

**Dr. Barbara H. Iglewski, Chairperson
Anatomy Search Committee
Department of Microbiology and Immunology
Oregon Health Sciences University
3181 S.W. Sam Jackson Park Road
Portland, Oregon 97201**

Oregon Health Sciences University is an Equal Opportunity Employer.

CHAIRPERSON

DEPARTMENT OF NEUROLOGY TUFTS UNIVERSITY SCHOOL OF MEDICINE NEW ENGLAND MEDICAL CENTER

Applications are solicited for the position of **chairperson** of the Department of Neurology, Tufts University School of Medicine, and neurologist-in-chief, New England Medical Center, Inc. We seek a candidate with the highest academic credentials who will be able to direct a vigorous multifaceted department in an expanding university Medical Center. Please send curriculum vitae and supporting information to:

**Robert E. Paul, Jr., M.D.
Professor and Chairman
Department of Radiology
Tufts-New England Medical Center
171 Harrison Avenue
Boston, Mass. 02111**

An Equal Opportunity Employer, M/F

CHIEF, OCEAN REQUIREMENTS AND DATA ANALYSIS DIVISION

The National Oceanic and Atmospheric Administration (NOAA) announces Senior Executive Service Vacancy for Chief, Ocean Requirements and Data Analysis Division, National Ocean Service (NOS). Location in Rockville, Maryland. Duties include providing scientific and technical leadership in the management, development, and execution of major programs in oceanography and related sciences. Pay rate for this SES position commensurate with background and experience; current salary range: \$56,945 to \$67,200 per annum. Apply to: **NOAA/NOS, 6001 Executive Boulevard, Rockville, Maryland 20852, attention: AT/PER15GMT.** Personal Qualification Statement (SF 171) must be received by 19 August 1983 to be considered. *Equal Opportunity Employer.*

DEPUTY ASSISTANT ADMINISTRATOR FOR OCEAN SERVICES AND COASTAL ZONE MANAGEMENT

The National Oceanic and Atmospheric Administration (NOAA) announces Senior Executive Service for Deputy Assistant Administrator for Ocean Services; location in Washington, D.C. Duties include providing scientific and technical leadership in the management, development, and execution of National Ocean Service (NOS) program policies and goals and the operation of programs of the component units. Pay rate for the SES position commensurate with background and experience; current salary range: \$56,945 to \$67,200 per annum. Apply to: **NOAA/NOS, 6001 Executive Boulevard, Rockville, Maryland 20852, attention: PER15:MMT.** SF-171 must be received by 19 August 1983 to be considered. *Equal Opportunity Employer.*

**THE INTERNATIONAL CENTRE OF
INSECT PHYSIOLOGY AND ECOLOGY
P.O. BOX 30772, NAIROBI, KENYA**

Applications are invited from suitably qualified persons for the following position:

**SENIOR RESEARCH SCIENTIST
(SENSORY PHYSIOLOGY RESEARCH UNIT)
SCI/83/2**

QUALIFICATIONS: Candidates should be mature and be in possession of the Ph.D. degree, preferably in insect physiology. A solid knowledge in biology will be a real asset. Proven ability to do original research on insect sensory systems using electrophysiological techniques for a minimum period of five years is absolutely essential.

RESPONSIBILITIES: Since the Sensory Physiology Research Unit is a support unit, the successful candidate will be required to (a) work in close liaison with scientists in the core programmes; (b) plan and carry out experiments related to solving problems posed by the target insects; (c) supervise and guide operations of the sensory physiology research unit; and (d) train staff working under him.

SALARY: Negotiable and includes attractive benefits.

Applications giving detailed information on general education, professional qualifications, experience, marital status, age, present terms of employment (including salary), names and addresses of four referees (including one personal referee), and photocopies of relevant certificates and diplomas (which will not be returned) should be addressed to:

**THE ACTING ADMINISTRATIVE MANAGER
ICIPE RESEARCH CENTRE
P.O. BOX 30772
NAIROBI**

TO REACH HIM NOT LATER THAN 20 AUG. 1983

**CALIFORNIA
BIOTECHNOLOGY INC.**

Applications are invited from molecular biologists to join CBI, a rapidly growing biotechnology company located in the Palo Alto area. We currently employ over thirty scientists and are now expanding into new laboratory space. We are developing research projects directed at human therapeutics and other fields and are committed to high scientific standards.

Positions are available at all levels (Ph.D., M.S., and B.S.) for individuals with experience in various aspects of molecular and cell biology including gene isolation and manipulation, gene expression in procaryotes and eucaryotes, protein chemistry, virology and immunology.

CBI offers an excellent research environment, attractive salaries and benefits, and the possibility of equity participation. Please send application, a curriculum vitae, and the names of three references to:

**Dr. Brian J. McCarthy
Director of Research
California Biotechnology Inc.
2450 Bayshore Frontage Road
Mountain View, California 94043**

**THE INTERNATIONAL CENTRE OF
INSECT PHYSIOLOGY AND ECOLOGY
P.O. BOX 30772, NAIROBI, KENYA**

**PROGRAMME LEADER
CROP PESTS RESEARCH PROGRAMME
REF: SCI/83/6**

The ICIPE is seeking candidates for the position of Programme Leader for Crop Pests Research Programme tenable at its major field station based at Mbita Point Field Station, which is situated about 500 km from Nairobi along the shores of Lake Victoria in Western Kenya. Candidates should have Ph.D. and wide research experience with a strong background in integrated pest management control, biological control, or related areas and should be equally interested in leading a research programme dedicated to developing integrated pest management systems for African and tropical subsistence agriculture.

Salary and benefits are attractive and are on an international scale. The field station has a resident institutional doctor, school teachers for grades I-VII plus modest comfortable staff houses for senior staff.

Applications giving an up-dated curriculum vitae covering general education, professional qualifications and experience, marital status, age, present terms of employment (including salary and benefits), names and addresses of four referees (one personal), and photocopies of relevant certificates and diplomas (which will not be returned) should be addressed to:

**The Ag. Administrative Manager
ICIPE Research Centre
P.O. Box 30772
NAIROBI**

To reach him not later than 20 Aug. 1983.

**THE INTERNATIONAL CENTRE OF
INSECT PHYSIOLOGY AND ECOLOGY
P.O. BOX 30772, NAIROBI, KENYA**

Applications are invited from suitably qualified candidates for the following positions:

**POSTDOCTORAL RESEARCH FELLOWSHIP
(FIVE POSTS): REF: SCI/83/5**

QUALIFICATIONS: Candidates must have a minimum qualification of Ph.D. degree or must have recently submitted a Ph.D. Thesis in one of the relevant Sciences (Insect Physiology, Ecology, Behaviour, Biochemistry, and Pathology; or Parasitology, or Epidemiology or Fine Structure). These positions exist in the Research Programmes at the Centre (Livestock Ticks, Tsetse, and Leishmaniasis), but a few of them are tenable in the programmes (Bases of Plant Resistance to Insect Attack, Crop Borers, and Insect Pathology and Pest Management) based at its Field Station situated at Mbita Point along the shores of Lake Victoria, about 500 km from Nairobi. Successful candidates who must be research oriented will be required to work in close cooperation and liaison with Research Scientists.

Fellowships will be awarded for one or two years, with extension for a third year in exceptional circumstances. The training fellowship package is reasonable, and includes attractive benefits.

Applications giving detailed information including curriculum vitae, professional experience (if any), marital status, age, present terms of employment (including salary) if any, names and addresses of four referees (one being personal), and photocopies of relevant certificates and diplomas (which will not be returned) should be addressed to:

**THE AG. ADMINISTRATIVE MANAGER
ICIPE RESEARCH CENTRE
P.O. BOX 30772
NAIROBI**

TO REACH HIM NOT LATER THAN 20. AUG. 1983

Senior Toxicologist Research & Development

Alcon Laboratories has enjoyed continued and consistent growth as a Fort Worth-based pharmaceutical concern. Presently our expansion includes a career opportunity for a Senior Toxicologist. Reporting to the Director of Corporate Toxicology, primary responsibilities will include the supervision of systemic preclinical toxicological evaluations.

Qualifications include:

- ☐ Ph.D. in Toxicology, Pharmacology or related areas.
- ☐ 3-5 years experience in conducting systemic toxicity studies, preferably with oral drugs.
- ☐ Experience in preparing IND/NDA's.
- ☐ Diplomate American Board of Toxicology preferred.
- ☐ Highly developed oral/written communication skills desirable.

In return, Alcon offers:

- ☐ Opportunity for professional advancement within a quality-oriented organization.
- ☐ Competitive starting salary in a lower cost of living region of the country.
- ☐ Comprehensive life/health/dental insurance coverage for professional and dependents.
- ☐ Generous profit sharing trust program.
- ☐ Southwest lifestyle in Dallas/Fort Worth offering a wide variety of cultural and recreational activities.

If your qualifications and desire for quality and results within a state-of-the-art environment compel you to respond in confidence to this outstanding opportunity, submit your detailed resume, with salary history, to:

T.D. Faver, Employee Relations - Employment Manager

Alcon

Alcon Laboratories, Inc.
P.O. Box 1959
Fort Worth, TX 76101

Equal Opportunity Employer, m/f/v/h
Principals Only, Please

POSITIONS OPEN

CELL BIOLOGIST/MOLECULAR BIOLOGIST/DEVELOPMENTAL BIOLOGIST

The Department of Cell and Molecular Biology of the Medical College of Georgia invites applications for a 12-month, tenure-track position at the senior faculty level. The successful candidate will be expected to develop a strong program in some aspect of cellular structure/function in his/her specialty and to participate in the teaching program, including a course in cell biology. Candidate's research interest could include such diverse areas as chromatin structure, membrane transport, cytoskeletal function, or RNA transport. Candidates working with eukaryotic systems will be preferred. Interested applicants should send curriculum vitae, including representative reprints, a brief statement of anticipated research, and names and addresses of three references to: **Dr. Lon D. Hodge, Chairman Search Committee, Department of Cell and Molecular Biology, Medical College of Georgia, Augusta, Ga. 30912. An Equal Opportunity/Affirmative Action Employer.** J0826.

CLINICAL IMMUNOLOGIST position available as of 1 September 1983. Candidate should have a doctoral degree and postgraduate training in an acceptable program specifically in clinical immunology. In addition, it is advantageous to have at least 2 years of hospital-based experience in clinical immunology covering both humoral and cellular procedures. Send curriculum vitae to: **Dr. A. S. Mark, Chairman, Division of Immunology, 639 South Wood Street, Chicago, Ill. 60612. We are an Equal Opportunity Employer.**

Joint Oceanographic Institutions Inc., a consortium of U.S. academic oceanographic institutions, is seeking a mid-level **CONTRACTS ADMINISTRATOR** to undertake responsibilities associated with a major 10-year program of scientific ocean drilling. Candidates should have an appropriate educational background and at least 5 years of significant experience in the field, preferably involving academic institutions. Familiarity with federal procurement regulations and nonprofit organization contracting procedures is essential. Experience with ships or other large-scale marine operations would be of value. Send résumé to: **John H. Clotworthy, Vice President, Joint Oceanographic Institutions Inc., 2100 Pennsylvania Avenue, NW, Room 316, Washington, D.C. 20037.**

An Equal Opportunity Employer

DEVELOPMENTAL BIOLOGY. Duties include teaching a course in developmental biology, a freshman level biology course, and departmental chairmanship. Requirements: an earned doctorate in biology, demonstrated ability in teaching, and evidence of potential in leadership and administration. Rank and salary are dependent upon qualifications. Letters of application (or nomination) and current academic résumé should be sent to: **Dr. Robert Bland, Department of Biology, College of St. Thomas, St. Paul, Minn. 55105, before 1 February 1984. An Equal Opportunity/Affirmative Action Employer.**

LOCAL DOSIMETRY RESEARCHER needed at the Division of Radiobiology, University of Utah School of Medicine, Salt Lake City, Utah. Radiation physicist or biophysicist. Ph.D. or equivalent in a related area. Applications at all levels are invited for a person with considerable background in local dosimetry of internally deposited radionuclides. Experience with bone-seeking radionuclides and bone is desirable but not required. Salary and rank commensurate with experience and interests. Application, together with curriculum vitae, research experience, interests, and names of three references, should be sent to: **Webster S. S. Jee, Division of Radiobiology, Building 351, University of Utah, Salt Lake City, Utah 84112; telephone: 801-581-6600. An Equal Opportunity/Affirmative Action/Title IX University.**

POSTDOCTORAL ASSOCIATE position available now for research on the behavioral pharmacology of opiate drugs and peptides in small primates and rodents. Applicants should have a recent doctorate in pharmacology or other basic medical science or in experimental psychology. Experience in the use of microcomputers and in stereotaxic surgery is desirable. Send résumé and names of three references by 31 August 1983 to: **Dr. Stephen G. Holtzman, Department of Pharmacology, Emory University School of Medicine, Atlanta, Ga. 30322. An Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

EDITOR

Editorial staff of a major interdisciplinary scientific journal. Primary responsibilities are participating in selection of and substantive editing of scientific research reports and articles in a variety of scientific fields. Candidate must be able to comprehend technical scientific papers, communicate with authors and reviewers, and be attentive to detail. Excellent English grammar and spelling, scientific background, and previous editing experience required. Send letter of application, résumé, and salary requirements to:

Box 204, SCIENCE

ELECTRO/OPTICAL PHYSICIST

Experienced physicist with manufacturing background who will be responsible for modification and/or redesign of sophisticated physics instruments and apparatus used in scientific and technical education. Exercise discretionary powers to direct, control, and coordinate activities of support staff who confer with engineering and technical personnel regarding fabrication and testing of prototype systems and development of interface units to meet present state of the art. Organize and construct annual catalog and supervise revision of technical manuals. Utilizing knowledge of selective scientific experiments, serve as liaison between our company and physics professors using electrooptical instruments, to field test modified instruments and provide instruction in their proper use. Requires Ph.D. in physics plus 3 years of direct experience or 3 years of related experience in modifying or redesigning technical electrooptical physics instruments and apparatus. Salary: \$60,000 a year; 40-hour week, 8 a.m. to 4:30 p.m., Monday through Friday. Send résumé to: **Richard Gilbert, President, Central Scientific Company, 11222 Melrose Avenue, Franklin Park, Illinois 60131.**

ELECTRON MICROSCOPY SUPERVISOR—Major teaching affiliation of The Mount Sinai School of Medicine seeks individual with a minimum of 3 years of experience in electron microscopy and histological techniques. Experience in immunomethods and other ultra structural histochemical techniques preferred. Supervisory skills required. Excellent salary and benefits. Please send résumé with salary requirements to: **L. Brenda Smith, Assistant Director of Personnel, MOUNT SINAI SERVICES, City Hospital Center at Elmhurst, 79-01 Broadway, Elmhurst, N.Y. 11373. An Equal Opportunity Employer.**

ENDOCRINOLOGY RESEARCH FELLOW—Steroid metabolizing enzymes, steroid and peptide hormone receptors in prostatic cancer.

Available immediately. Send curriculum vitae and references to: **Dr. David Rose, Division of Nutrition and Endocrinology, Naylor Dana Institute, Valhalla, New York 10595.**

SENIOR FACULTY POSITION

A senior faculty position is available, with teaching and research responsibilities in the area of human genetics. The specific area of research interest is open, but preference will be given to candidates with interests in the molecular biology of inborn errors of metabolism or somatic cell genetics. Interfacing with clinical departments may be part of the duties. American Board of Medical Genetics-eligibility or certification is highly desirable. The successful candidate will be expected to develop a strong research program and to participate in departmental teaching. Send curriculum vitae, including representative reprints, a brief statement of anticipated research, and a list of three persons willing to write letters of reference to: **Dr. Lon D. Hodge, Chairman Search Committee, Department of Cell and Molecular Biology, Medical College of Georgia, Augusta, Ga. 30912. An Equal Opportunity/Affirmative Action Employer.** J0826.

POSTDOCTORAL FELLOW in neuropharmacology to join a group studying the interaction of neurotransmitters and neuropeptides, particularly substance P and neuropeptide Y. Should have technical competence in receptor autoradiography, radioimmunoassay, and HPLC. Apply with copy of curriculum vitae and references before 30 August 1983 to: **Dr. N. P. V. Nair, Director, Douglas Hospital Research Centre, 6875 LaSalle Boulevard, Verdun, Quebec, Canada H4H 1R3.**

POSITIONS OPEN

ENVIRONMENTAL HEALTH OFFICER

The Johns Hopkins University is seeking a Ph.D. with a strong background in chemistry and industrial hygiene training, or experience, to assist in the continued development and implementation of a comprehensive Hazardous Chemical Control Program.

Will review protocols, practices, and facilities where there is a potential for personnel or environmental exposures to hazardous chemicals; evaluate the hazards and recommend protective measures. Manage the hazardous chemicals waste disposal program and maintain records required by state and federal agencies. Disseminate information on the dangerous properties of chemicals. Train laboratory and support personnel in the safe handling of hazardous chemicals.

Please reply by confidential résumé and include references and salary history to: **Dr. Byron Tepper, Director, Safety & Environmental Health.**

**The Johns Hopkins University
624 North Broadway
Baltimore, Maryland 21205**

An Equal Opportunity Employer

FACULTY POSITIONS IN BIOMEDICAL ENGINEERING, BOSTON UNIVERSITY COLLEGE OF ENGINEERING, at the assistant/associate/full professor levels in expanding Department of Biomedical Engineering for September 1983 or January 1984. Applicants should have an earned doctorate, be committed to quality teaching at both undergraduate and graduate levels, and have the desire to develop strong research programs. Collaboration with the Boston University School of Medicine or other engineering departments may be facilitated through a joint faculty appointment. Candidates with backgrounds in chemical engineering, mechanical design, electronics, computer engineering, biomechanics and materials, image processing, or robotics are especially welcome. Opportunities for part-time (adjunct) faculty positions and for collaborative arrangements with nearby institutions involved in biomedical research and development are also available. There may also be an opportunity for a visiting appointment of 1 or 2 years duration to replace faculty on sabbatical leave. Candidates should send résumé, list of publications, names and addresses of at least three references, and a brief statement of teaching and research interests to: **Dr. Henry D'Angelo, Chairman, Engineering Search Committee, College of Engineering, Boston University, 110 Cummings Street, Boston, Mass. 02215. Boston University is an Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITION: SENSORY SCIENCES CENTER

The Sensory Sciences Center of the University of Texas Graduate School of Biomedical Sciences invites applications for a tenure-track position at the assistant or associate professor level. The candidate's expertise may be in any sensory system and may involve anatomical, behavioral, biophysical, biochemical, or physiological methods. The Sensory Sciences Center is composed of six faculty members whose research programs include vision, audition, taste, learning, and memory. Performance requirements for the position include developing an active research program, obtaining external research support, and participating in graduate student education. Send curriculum vitae, comprehensive statement of future research plans, and three references (names only) within 30 days to:

**H. G. Sperling, Director
Sensory Sciences Center
University of Texas Graduate
School of Biomedical Sciences
P.O. Box 20708
Houston, Texas 77025**

An Equal Opportunity Employer. Women and minorities are encouraged to apply.

NUCLEIC ACID CHEMIST. Applications are invited from individuals with strong background in synthetic organic chemistry and experience in chemical synthesis of oligonucleotides. The position involves custom synthesis of deoxynucleotides by solid phase methodology. Salary consistent with qualifications and experience. Send curriculum vitae and names of three references to: **Mrs. A. C. Rickey, The Public Health Research Institute of the City of New York, Inc., 455 First Avenue, New York, N.Y. 10016. Affirmative Action/Equal Opportunity Employer.**



VICE PRESIDENT PRODUCT DEVELOPMENT

CENTOCOR, INC., a dynamic, well-financed technology company in the field of biological substances is seeking a Vice President of Product Development. This challenging position offers an opportunity to direct a sizable group with several Ph.D. level scientists. We offer excellent compensation, comprehensive benefits and equity participation.

Qualifications for this position include: industrial experience in the development of in-vitro and in-vivo products as well as strong management and technical capabilities.

For immediate consideration, please send resume to:

CENTOCOR, INC.
Attn: Vincent R. Zurawski, Jr., Ph.D.
Senior Vice President & Technical Director
244 Great Valley Parkway
Malvern, PA 19355

MICROBIOLOGIST

Genetic Engineering and Biotechnology Research

Opportunity for PhD Microbiologist to join a multidisciplinary team of scientists in developing and expanding government and industry sponsored research programs in microbiology, biochemistry, organic chemistry, oncology, and biomass.

Position requires broad training and research concentration in microbial genetics and a minimum of two years experience in such areas as recombinant DNA technology, gene mapping, base sequencing techniques, restriction endonuclease analysis, and enzymology. Candidate must have excellent skills in communication, leadership, and interpersonal relationships.

Duties include proposal preparation, report writing, interaction with sponsors and potential sponsors of research, and functioning as project leader or major contributor for research in genetic engineering and biotechnology.

Southern Research Institute is a contract research organization in its thirty-eighth year of operation with a staff of 600, situated on 10 acres in an urban, campus-like setting. We offer a stimulating working environment, competitive salaries, generous benefits, shared income on Institute-owned patents, and an outstanding opportunity to develop and broaden a professional reputation and to pursue a challenging career directed toward your area of interest.

U. S. Citizenship Required

Send curriculum vitae and list of publications to Denise D. Johnson

Southern Research Institute
2000 Ninth Avenue South
P.O. Box 55305
Birmingham, Alabama 35255-5305



Southern Research Institute

An Affirmative Action/Equal Opportunity Employer

Section Head

Microbiological Research & Development

G. D. Searle, a respected leader in pharmaceutical research and development, has a key leadership position available that will play a very significant role in its biotechnology based R&D programs. This position is available due to a significant new business interest and planned expansion of activities.

The candidate should have a Ph.D. in microbiology, biochemistry, microbial genetics, or a related discipline. Industrial experience in fermentation processes, enzymology, and a background in genetic engineering is preferred.

This position will be highly visible within the company and provide an opportunity for significant impact upon the achievement of R&D and business objectives.

It is important that the candidate have excellent communication and coordination skills to interact with other parts of the organization in the planning and executing of biotechnology process activities. In addition supervisory and management skills should have been demonstrated.

We offer an excellent benefit package, salary commensurate with experience and full relocation allowance. If you feel you meet the above qualifications and are interested in a unique opportunity to demonstrate scientific creativity and leadership skills in a highly professional environment, please submit your resume, including salary requirements, in confidence, to:

Barbara Gardner
#729-12
Searle Research and Development
Division of G. D. Searle & Co.
4901 Searle Parkway
Skokie, Illinois 60077

An Equal Opportunity Employer M/F/H

SEARLE

PROTEIN CHEMIST

The Upjohn Company, a leader in the worldwide research, marketing and production of pharmaceuticals, chemicals, and agricultural products, has an opening in its peptide and protein research program in Experimental Sciences Research for a scientist with a strong background in peptide and protein sequencing and experience in protein isolation and purification. Principal duty will be the microsequencing of peptides and proteins from natural sources as well as genetically modified sources. Initiation and participation in collaborative research projects aimed at discovering and developing new peptides or protein therapeutic agents is essential.

The successful candidate will possess a Ph.D. in chemistry, biochemistry or a closely related field with at least two years of relevant experience (beyond the doctorate) in protein and peptide sequencing together with the complementary skills in protein isolation and purification. The candidate must have a demonstrated ability to conduct independent and collaborative laboratory research and to effectively communicate results.

Upjohn offers career potential, competitive salary (commensurate with experience), and an outstanding benefits package. Kalamazoo is a medium-sized southwest Michigan community with immediate access to a mix of excellent cultural, educational and recreational pursuits.

For confidential consideration, please call toll free Upjohn's Corporate Employment office at 1-800-253-8600 and ask for extension 3-6767. In Michigan, call collect 616/323-6767. Please refer to ad number 15160 when calling.

Equal Opportunity Employer M/F

Upjohn

POSITIONS OPEN

Faculty Positions in Biochemistry Louisiana State University Medical Center

The Department of Biochemistry of the Louisiana State University (LSU) Medical Center invites nominations and applications for two tenure-track positions. One position is at the level of assistant professor and a second position is at any rank commensurate with experience, including that of full professor. In addition to the School of Graduate Studies, the Medical Center includes Dental, Medical, and Nursing Schools, and the School of Allied Health Professions. The LSU Medical Center (New Orleans) is in the midst of a multimillion dollar building program. The department has recently doubled in size with the development of several new programs. Interest and excellence in teaching biochemistry and in performing research are expected. Applicants should send curriculum vitae, bibliography, a short summary (three pages) of research goals, and the names of three references to: **Robert Roskoski Jr., Search Committee, Department of Biochemistry, LSU Medical Center, New Orleans, Louisiana 70119.**

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

FACULTY POSITIONS IN MARINE AFFAIRS

The Division of Marine Affairs of the Rosenstiel School of Marine and Atmospheric Science at the University of Miami seeks applicants for one or more positions to become available in 1983/1984. The Division endeavors to develop research, education, and technology-transfer programs in those areas of marine science which involve an integration of basic and applied research with natural resource policy and management. Preference will be given to self-motivated applicants who can demonstrate the potential to develop a viable and coherent program in such example areas as artisanal fishery development, marine transportation, mariculture, and natural resource economics. Rank, salary, and benefits are open to negotiation. Serious applicants should submit a complete résumé, names and addresses of five references, and a statement of program development goals by 30 September to: **Dr. Samuel C. Snedaker, Chairman, Division of Marine Affairs, Rosenstiel School of Marine and Atmospheric Science, 4600 Rickenbacker Causeway, Miami, Florida 33149.** *The University of Miami is an Affirmative Action/Equal Opportunity Employer.*

POSITION IN HUMAN ANATOMY

Applications are invited for a position in the Department of Human Anatomy. Ability to establish an independent research program and attract extramural funding in the area of cellular biology essential. Primary teaching responsibilities will be in gross anatomy. One or 2 years of postdoctoral experience required. Appointment at the assistant or associate professor level depending on individual's qualifications. Send complete curriculum vitae, including a statement of research interests and five letters of reference to: **Dr. Andrew G. Hendrickx, Search Committee Chair, Department of Human Anatomy, School of Medicine, University of California, Davis, Calif. 95616.** Application deadline is 1 October 1983. Only complete applications will be considered. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

MARINE SCIENCE. Research assistant. Responsibilities include: taxonomy of macrobenthic organisms; laboratory and field operation supervision; statistical analyses; report preparation. Applicants with M.S. degree or experience in benthic estuarine or coastal marine science will be given preference. Send curriculum vitae to: **Dr. Larry DeRouen, Department of Research and Development, McNeese State University, Lake Charles, La. 70609.**

MOTONEURON CHEMISTRY

POSTDOCTORAL RESEARCH FELLOW to study protein synthesis in regenerating and degenerating spinal motoneurons. Quantitative 2-D electrophoresis and fluorography on isolated neuronal cell bodies. Seek a Ph.D. or M.D. with strong interest in neurobiological research. Offer an accessible principal investigator and a very attractive university community. Salary, starting date negotiable. Contact: **Dr. D. L. McIlwain, Neurobiology Curriculum and Department of Physiology, 176 Medical Research Wing 206H, University of North Carolina School of Medicine, Chapel Hill, N.C. 27514.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ENTOMOLOGY GROUP LEADER. The College of Agriculture/Agricultural Experiment Station invites nominations/applications for an **entomology group leader.** The position is a 12-month, tenure-track appointment at the associate or full professor level. The successful candidate must have: (i) a Ph.D. in entomology; (ii) a record of scholarly achievement and distinguished, diversified teaching; (iii) been productive in grantsmanship and research; (iv) demonstrated administrative ability, and (v) preferably, research training or experience in insect vector-plant disease relationships. A detailed job description and qualifications are available upon request. Applications should include a letter of application, professional curriculum vitae, and names, addresses, and telephone numbers of three references, and should be sent to: **Dr. D. P. Bartlett, Chairman, Search Committee, 215 Linfield Hall, Montana State University, Bozeman, Montana 59717.** Deadline for nominations is 1 September 1983; applications accepted until 15 September 1983.

CENTER FOR BIOLOGICAL CONTROL OF MOSQUITOES (CBCM)

- Insect Pathologist**—One tenure-track position. Ph.D. and experience required. Pursue vigorous research program on biological control of mosquitoes, mostly with *B.t.i.* Teach courses in insect pathology, biological control of insects, or others in area of expertise. Rank commensurate with experience and qualifications.
- Insect Pathologist**—One postdoctoral position. Research on biological control of mosquitoes with *B.t.i.* Background in bacteriology required. Participate in teaching.
- Aquatic Insect Ecologist**—One tenure-track position. Ph.D. and experience required. Develop vigorous field-ecology research programs in hydrobiology and specifically on mosquito producing ecosystems. Experience in limnology required. Teach courses related to above topics, invertebrate zoology, or others in area of expertise. Rank commensurate with experience and qualifications.
- Aquatic Insect Ecologist**—One postdoctoral position. Research on mosquito-producing ecosystems. Background in limnology desired. Participate in teaching.

Positions to begin in the spring of 1984. Closing date: 31 October 1983. Please send résumé, official transcripts, and three references to:

**Dr. Joel Margalit
Department of Biology
Ben-Gurion University of the Negev
Beer Sheva, Israel**

INSTRUCTOR IN ANATOMY

The Department of Anatomy at the Medical College of Ohio invites applications for the position of instructor. The department is searching for a qualified individual with interests in subcellular structure. Preference will be given to individuals with demonstrated interest in cell biology and expertise in current electron microscopic techniques for research and in gross and microscopic anatomy for teaching. Excellent facilities and support are available. Teaching will be primarily in medical and nursing curricula and gross anatomy. Interested individuals should send curriculum vitae and three letters of recommendation to: **Dr. L. J. A. DiDio, Chairman, Department of Anatomy, Medical College of Ohio, C. S. 10008, Toledo, Ohio 43699.** *The Medical College of Ohio is an Equal Opportunity/Affirmative Action Employer.*

INVERTEBRATE PHYSIOLOGICAL ECOLOGIST. The Department of Biology of The Pennsylvania State University invites applications for a tenure-track position for an invertebrate physiological ecologist to begin January 1984. A Ph.D. is required. Preference will be given to applicants with an emphasis in comparative physiology. The successful candidate will be expected to develop a strong research program and teach an introductory undergraduate course and an upper division or graduate course in his/her area of expertise. Rank depends on qualifications and experience. Submit curriculum vitae, statement of research and teaching interests, and three letters of recommendation by 15 October 1983 to: **Search Committee, Department of Biology, 208 Mueller Laboratory, Box A, The Pennsylvania State University, University Park, Pa. 16802.** *An Equal Opportunity/Affirmative Action Employer*

POSITIONS OPEN

IMMUNOLOGISTS

Newly developed research center is seeking senior and junior scientists for **cancer immunology, particularly hybridoma, immunochemistry, tumor imaging, and tumor therapy research.** Candidates with experience and funding in these or related disciplines are encouraged to apply before 15 September 1983. Salary commensurate with experience and credentials. Eligibility for adjunct faculty appointment. Send résumé and names of references to:

**Personnel Director
CENTER FOR MOLECULAR MEDICINE
AND IMMUNOLOGY
University of Medicine and Dentistry of New Jersey
Interims Building Number 1, Room 111
100 Bergen Street
Newark, N.J. 07103
*Equal Opportunity Employer***

PLANT GENETICIST, ASSISTANT PROFESSOR: Major responsibilities are to assume responsibility for an established plant tissue and cell culture project, and to teach and advise graduate students in plant genetics/tissue culture. Research will emphasize basic aspects of tissue and cell culture technology and the development of germplasm with plant breeding applications. Ph.D. with emphasis in plant genetics required; experience in plant tissue culture preferred. Closing date for receiving applications: 30 September 1983; position available 1 December 1983, or as soon thereafter as possible. Send résumé and transcripts, and ask three or more individuals to write letters of recommendation to: **Dr. H. W. Johnson, Head, Department of Agronomy and Plant Genetics, University of Minnesota, 1509 Gortner Avenue, St. Paul, Minn. 55108.** *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE POSITION. Must have demonstrable experience in one or more of the following techniques: (i) microinjection of macromolecules into cultured cells; (ii) protein and RNA purifications; (iii) construction of recombinant DNA molecules; or (iv) two-dimensional polyacrylamide gel electrophoresis. Send curriculum vitae and the names of three references to: **Dr. James R. Smith, Department of Virology, Baylor College of Medicine, 1200 Moursund Avenue, Houston, Texas 77030.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS (two) available in fall 1983 for studies of neuronal assembly organization. We are using multi-microelectrode recording to observe 10 to 20 individual neurons simultaneously, mostly on mammalian cortex, and are working toward behaving animals. We are also developing new high-resolution optical methods for the detection of local cortical activity. Applicants should send résumé, bibliography, and three letters of reference to: **George L. Grestin, Department of Physiology/G4, School of Medicine, University of Pennsylvania, Philadelphia, Pa. 19104.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION now available for Ph.D. in the field of biochemistry, neuroendocrinology. Successful applicant will join ongoing research investigating normal and tumor biosynthesis of vasopressin, oxytocin, and neurophysins. Send curriculum vitae, description of research experience, and names of three references to:

**Dr. William G. North
Department of Physiology
Dartmouth Medical School
Hanover, N.H. 03756**

POSTDOCTORAL SCIENTIST. Position available for Ph.D. in biochemistry or related field to study lipoprotein metabolism and atherosclerosis in non-human primates under supervision of Dr. Rampratap S. Kushwaha, associate scientist. Applicant should be experienced with methods in protein biochemistry and metabolism. Minimum first year salary is \$17,784 with consideration made for prior relevant postdoctoral experience. Position available for 2 years with the opportunity for further extension or conversion to a staff position. Apply to: **Personnel Manager, Southwest Foundation for Research and Education, P.O. Box 28147, San Antonio, Texas 78284.** Include curriculum vitae, a description of research interests, and names of three references, including major professor, in initial correspondence. *An Equal Opportunity/Affirmative Action Employer*

ELECTROPHYSIOLOGIST- PHARMACOLOGIST

An immediate opening exists in the department of pharmacology for a PhD level person with 2 years post doctoral experience to participate in our CNS research program.

This position involves discovery of new drugs and mechanisms of action studies utilizing the recording of brain electrical activities. Expertise in recording single and multi unit activity in the computer based acquisition of such data is essential.

Send your resume and salary requirement to:

Merrell Dow



**MERRELL DOW
RESEARCH CENTER**
2110 East Galbraith Road
Cincinnati, Ohio 45215
Equal Opportunity Employer M/F/H

CNS Pharmacologist

Sterling-Winthrop Research Institute announces an opening for a Senior Research Biologist in the CNS section of its Pharmacology Department. The scientist will study and evaluate the mechanism of action of analgesic compounds using neurophysiological techniques at the IN VIVO and IN VITRO level.

The successful candidate will have a PhD in Pharmacology or the equivalent theoretical depth and 1-2 years experience in a related area. Specialized training in neurophysiology is a strong plus.

We offer an attractive salary and benefits package with the opportunity for professional growth. The Institute is located near Albany, NY, which is readily accessible to major summer and winter recreational activities. Please send your curriculum vitae including salary requirements in confidence to:

Mr. John G. Barry

**STERLING-WINTHROP
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Sterling Drug Inc.

Columbia Turnpike
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THE INTERNATIONAL CENTRE OF INSECT PHYSIOLOGY AND ECOLOGY P.O. BOX 30772, NAIROBI, KENYA

The ICIPE is an international institution headquartered in Nairobi, Kenya. It undertakes advanced research in insect science and pest management, and offers high-level training to insect scientists and technologists from Africa and other developing countries. It has 40 senior scientists, and is funded by a consortium of donors comprising UN, governmental aid agencies, and private foundations.

Applications or nominations are invited for two senior positions at the level of Assistant Director for:

ADMINISTRATIVE MANAGER (REF: ADM/83/8)

The Administrative Manager reports direct to the Director of the Centre. As overall head of Administration, he provides professional leadership in formulating, delivering and monitoring all administrative and personnel services. The role of Administration is supportive to scientific and training activities of the Centre. In this respect, the Administrative Manager works closely with the Deputy Director (who is in charge of the research and related programmes), the Financial Manager, the Manager for Communication Systems, and the Principal Planning Officer. He is supported by a team of senior administrative staff.

The work requires a high intellectual ability, initiative and professionalism in dealing with a wide range of policy, and operational issues, and readiness to work under pressure. The candidate should have training and experience in business management, and should have worked in an international or multicultural environment.

MANAGER FOR COMMUNICATION SYSTEMS (REF: ADM/83/9)

The Manager for Communication Systems reports direct to the Director of the Centre. Since ICIPE's mandate places it in a dynamic development area, there is need to provide information to various levels of clientele. The Manager for Communication Systems has, therefore, responsibility for the Library Services, Editorial and Publication Services, Archives, Conferences, Public Relations defining the needs, developing appropriate channels and forms of communication to make information productive and supportive of the research process, and promoting the transfer of research results for human benefit. Further, he monitors and formulates the training needs of national programmes in Africa.

The candidate should have a solid science or communication background, be competent in the use of modern techniques of information communication and presentation, and have considerable managerial experience.

GENERAL INFORMATION

These are senior positions at the Centre and therefore candidates should have considerable experience at a senior management level. A more detailed job description will be sent to qualified candidates. The remuneration package which will reflect the importance of the positions and the calibre of the individual selected, is negotiable. Applications, giving updated curriculum vitae and addresses of three referees should be addressed (in confidence) to:

The Director
ICIPE Research Centre
P.O. Box 30772
NAIROBI, Kenya

CLOSING DATE: 20TH AUGUST 1983.

BECKMAN POSTDOCTORAL SCHOLAR PROGRAM

The Gene Research Laboratories (GRL) of the University of California, Irvine, announce a **BECKMAN POSTDOCTORAL SCHOLAR fellowship program**. The emphasis of this program is in the areas of molecular genetics, recombinant DNA technology, and cell biology. Several positions for research in the laboratories of GRL investigators are available for candidates who have demonstrated exceptional research promise at the predoctoral or postdoctoral level. Each Beckman Scholar will have the opportunity to interact with scientists in the various laboratories of the Health Care Group of Beckman Instruments through a joint GRL-Beckman seminar program. Limited consulting arrangements are possible. Outstanding applicants will be invited to the GRL for seminar presentations. The principal investigators of the GRL and their research interests are:

Dr. Kevin Bertrand: Regulatory and structural genes determining bacterial tetracycline resistance.

Dr. Dennis Cunningham: Cell surface receptors and the generation of biological signals.

Dr. George Gutman: Immunology; antibody structure and gene organization.

Dr. G. Wesley Hatfield: Molecular genetic characterization of: (i) attenuation in *Escherichia coli*, and (ii) human genes of clinical importance.

Dr. Harris Moyed: Genetic control of antibiotic susceptibility.

Dr. Kathleen Postle: Molecular genetics of *E. coli* cell envelope, iron transport, and gene regulation.

Dr. Suzanne Sandmeyer: Structure and function of transposable elements in yeast.

Dr. Rozanne Sandri-Goldin: Control of gene expression in Herpes simplex virus.

Dr. Bert Semler: Directed mutagenesis and expression of cloned animal virus genes.

Dr. Steven Sharp: Molecular biology of eukaryotic tRNA gene expression.

Dr. Eric Stanbridge: Identification and characterization of human oncogenes and oncogene suppressor sequences.

Dr. Paul Sypherd: Fungal morphogenesis.

Applications, including three letters of reference, should be sent to:

Director, Gene Research Laboratories
Department of Microbiology
University of California
Irvine, Calif. 92717

An Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

Postdoctoral Fellow

Join an established group analyzing neural mechanisms of circadian rhythm regulation in mammals. The major research emphasis is on circadian rhythm analysis and power spectral analysis. Morphological studies will employ a variety of techniques: electron microscopy, autoradiology, retrograde transport methods, immunohistochemistry, fluorescence histochemistry. PhD and research training, including experience in chronobiology, are required. Send curriculum vitae and names of three references to: **Dr. Robert Y. Moore, Department of Neurology, Health Sciences Center, State University of New York (SUNY) at Stony Brook, Stony Brook, N.Y. 11794.** *SUNY Stony Brook is an Equal Opportunity/Affirmative Action Employer.* AK 664.

POSTDOCTORAL POSITION available for studies investigating herpesvirus-induced arteriosclerosis. Expertise in immunology and virology is desirable. Send curriculum vitae and three references to: **Dr. David P. Hajjar, Department of Pathology, Cornell University Medical College, 1300 York Avenue, New York, N.Y. 10021.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION to study **LYSOPHOSPHOLIPID-MEDIATED REGULATORY MECHANISMS IN MEMBRANES AND CELLS.** Experience relevant to the project may be in the areas of phospholipid metabolism, membrane biochemistry, lipoproteins, cell culture, or platelets. Annual stipend (\$16,400 minimum) and position (Hormel fellow, research associate) dependent upon previous experience. Submit, before 15 September 1983, curriculum vitae, names of three references, research summary, and a brief outline of research goals to: **Dr. Wolfgang J. Baumann, The Hormel Institute, University of Minnesota, Austin, Minn. 55912.** Telephone: 507-433-8804. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages women and minority applicants.*

POSTDOCTORAL POSITION IN PULMONARY PHYSIOLOGY available immediately. The candidate should be interested in the mechanics of the respiratory system and in pulmonary gas exchange. The program has a long-standing interest in the response of the respiratory system to general anesthesia and muscle paralysis, with particular emphasis on the response of the chest wall. Interested candidates should send curriculum vitae, bibliography, and three letters of reference to: **Dr. Kai Rehder, Department of Physiology and Biophysics and Anesthesiology, Mayo Clinic, Rochester, Minnesota 55905.** *Mayo Clinic is an Affirmative Action/Equal Opportunity Institution.*

POSTDOCTORAL POSITIONS available for research in gastrointestinal physiology. Search is open-ended and applications are accepted at any time. Send curriculum vitae to: **Postdoctoral Search Committee, Department of Physiology, School of Medicine, University of Nevada, Reno, Nevada 89557.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION. Candidates must have a good knowledge of molecular biology and good experience in statistical studies of DNA evolution or in theoretical population genetics. Telephone: 713-792-4619, or send curriculum vitae and names and telephone numbers of three references to: **Dr. Wen-Hsiung Li, Center for Demographic and Population Genetics, University of Texas, P.O. Box 20334, Houston, Texas 77025.** *The University of Texas is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately for recent Ph.D. in an active cancer research program. Current projects include studies of the mechanisms of action and metabolism of anticancer drugs, mechanisms of organs specific toxicity of anticancer drugs, and the effect of organ damage on metastasis. Previous research experience in the biochemistry and pharmacology of anticancer drugs is highly desirable. Salary commensurate with experience. Send curriculum vitae and names of three references to: **Dr. Miles P. Hacker, Vermont Regional Cancer Center, 1 South Prospect Street, Burlington, Vt. 05401.** Telephone: 802-656-2559. *An Affirmative Action Employer. Women and minorities encouraged to apply.*

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately for studies on dopamine neurons and antipsychotic drugs in multidisciplinary research programs. Background and experience in electrophysiology, pharmacology, and neuroanatomy are highly desirable. Send curriculum vitae and three references to: **Dr. Rex Y. Wang, Department of Pharmacology, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, Mo. 63104.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION. Available 1 November 1983 to join an interdisciplinary team involved in studies of the mechanism of substrate reduction nitrogenase. The successful candidate could be a biochemist interested in enzyme kinetics and mechanisms or possibly an analytical chemist wishing to explore an enzyme system. Salary range is \$15,500 to \$16,500. Send curriculum vitae and three letters of recommendation to: **Barbara K. Burgess, C. F. Kettering Research Laboratory, 150 East South College Street, Yellow Springs, Ohio 45387.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION; fall 1983. Preference given to recent graduate in molecular biology, protein biochemistry, or chemical carcinogenesis, with interest in methylation of protein and DNA. Send curriculum vitae and two letters of reference to: **Charles Bieler, Fels Research Institute, Temple University School of Medicine, Philadelphia, Pa. 19140.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH IN PSYCHOBIOLOGY

The Department of Psychobiology, University of California, Irvine (UCI), anticipates filling several postdoctoral research positions in the laboratories of the faculty, with starting dates between now and 30 June 1984. The current faculty and their research interests are: D. Aswad (neurochemistry); M. Baudry (cell biology and neurochemistry); C. Cotman (synaptic growth and plasticity); R. Josephson (comparative physiology of muscles); M. L. Kean (linguistics and neural mechanisms of language processing); H. Killackey (developmental neuroanatomy); M. Leon (developmental psychobiology); G. Lynch (physiology, neurochemistry); J. Marshall (neural plasticity of catecholamines); J. McLaugh (memory storage processes); N. Weinberger (neural mechanisms of learning); and P. Yahr (neuroendocrinology and behavior).

Candidates should address inquiries to: **Postdoctoral Research Advisor, Department of Psychobiology, University of California, Irvine, Calif. 92717.**

UCI

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POSTDOCTORAL/RESEARCH ASSOCIATE position available to study the molecular basis for α_2 -adrenergic-mediated platelet secretion and its relationship to the adenylate cyclase system. A Ph.D. in biochemistry, pharmacology, or physiology preferred. Interested candidates should send curriculum vitae and three letters of reference to: **Lee E. Limbird, Ph.D., Associate Professor, Department of Pharmacology, Vanderbilt University, Nashville, Tenn. 37232.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE

Approval pending available late summer or fall 1983 to join group developing techniques for introducing genes into the chicken germline. Incumbent is expected to develop retroviral or DNA vectors, and test them in cell culture and in vivo. Applicants must have experience in recombinant DNA techniques. Experience in cell culture and with selective markers desirable. Send résumé to: **Dr. L. B. Crittenden, Regional Poultry Research Laboratory, Box R, 3606 East Mount Hope Road, East Lansing, Michigan 48823.** Telephone: 517-337-6827. *Michigan State University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL TRAINING IN CLINICAL CHEMISTRY. Positions available 1 July 1984 for basic scientists or physicians interested in careers as laboratory directors in academic laboratory medicine. The 2-year program provides practical experience in clinical chemistry laboratories and extends relevant basic scientific knowledge. Salaries equal NIH fellowships. Deadline for complete application: 1 November 1983. Write: **Dr. Margaret Kenny, Department of Laboratory Medicine, SB-10, University of Washington, Seattle, Wash. 98195.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL VISITING SCIENTIST. Biochemist to solubilize, purify, and reconstitute membrane-bound enzymes of sterol biosynthesis. Position available immediately; 1 year, second year possible. Apply: **J. L. Gaylor, E. I. du Pont de Nemours & Co., Inc., 500 South Ridgeway Avenue, Glenolden, Pa. 19036.**

REGENTS PROFESSORSHIP IN MOLECULAR BIOLOGY

University of Kansas

We seek a distinguished scholar to hold a Regents professorship in molecular biology in its broadest sense. This individual should be an internationally recognized scholar with a productive, respected research program; be a catalyst for innovative research with colleagues; and interact with others in science, technology, and industry to enhance the economic development of the state.

Salary and other aspects of the appointment are negotiable, depending upon experience and performance. Appointment effective 1 January 1984 or as negotiated.

First consideration will be given to applications and nominations received by 15 October. Subsequent candidates will be included in a monthly review until the position is filled. Applications, nominations, and requests for further information should be sent to: **Professor Robert S. Hoffmann, Biological Science, University of Kansas, Lawrence, Kans. 66045.**

Equal Opportunity/Affirmative Action Employer

PROFESSOR OF RADIATION THERAPY at the Harvard Medical School and **CHAIRMAN** of Joint Center for Radiation Therapy. Qualifications include scholarship of high quality and skills in leadership and teaching. Previous administrative experience is desirable. *We are an Equal Opportunity Employer.* Please respond to: **Dr. William Silen, 330 Brookline Avenue, Boston, Mass. 02215.**

PROTEIN SEQUENCING TECHNOLOGY

St. Jude Children's Research Hospital invites applications for the position of manager of a new Protein Sequencing Facility that will support research projects of a number of faculty. Candidates should have a Ph.D. and must have research experience in the area of protein/peptide structure, preferably involving sequencing. Appointment will be to a faculty position (research associate) and the candidate will be expected to develop his/her own research program for which initial support will be available. Applications should include curriculum vitae and the names and addresses of three references and should be sent to:

Dr. Raymond L. Blakley
Division of Biochemical and Clinical Pharmacology
St. Jude Children's Research Hospital
332 North Lauderdale
Memphis, Tennessee 38128

PULMONARY RESEARCH—FACULTY POSITION. Recently expanded pulmonary division affiliated with the State University of New York at Stony Brook seeks a full-time scientist eligible for faculty appointment at the assistant or associate professor level. Applicants should be capable of initiating and pursuing independent investigative projects in animals or humans and should be interested in collaboration with two physician-scientists with established interests in cell biology, lung injury, and respiratory infections. Excellent salary available as well as the opportunity to assist in the formation of a fully-funded and equipped laboratory. Address all inquiries to: **Alan M. Fein, M.D., Pulmonary Section, Nassau Hospital, 259 First Street, Mineola, N.Y. 11501.**

SCIENTIST OR ENGINEER

ENERGY RESOURCE ADMINISTRATOR. State of Maryland unclassified position involves study of environmental impacts of existing electrical power plants and prediction of impacts of proposed new plants. Doctoral degree in a quantitative science is required. Prefer applicants in physical science or engineering. Experience in one or more of the following areas is desirable: physical chemistry, modeling, statistics, hydrology. Opportunity for advancement. Complete state benefit package. *An Equal Opportunity Employer.* Location: Annapolis, Maryland. Salary: \$22,883 to \$31,200, commensurate with qualifications. Apply (with résumé): **Dr. Randy Roig, Director, Power Plant Siting Program, Tawes State Office Building (B-3), Annapolis, Md. 21401.**

Scientists

Positions are available in our Cambridge laboratory for scientists with experience and skills in the specialty area of:

Protein Chemistry and Protein Purification

Candidates should have expertise in one of the following areas:

- enzymology
- protein structural chemistry
- peptide chemistry
- sequence analysis

Positions are available at the Ph.D. level. Masters degree recipients who have considerable experience in these technical areas are also encouraged to apply.

Biogen is a biotechnology company with laboratories in the United States and Switzerland, developing commercial applications of molecular biology in the areas of agriculture, chemicals, pharmaceuticals and energy. We offer a challenging scientific career with the opportunity to interact with talented colleagues in a stimulating environment.

Biogen offers an attractive compensation and benefits package.

Please send your resume and a list of three individuals whom we may contact for references on your behalf to: **Nanci Pye, Manager of Human Resources, Biogen, 14 Cambridge Center, Cambridge, MA 02142.**

All replies will be evaluated in confidence. Biogen is an equal opportunity employer.

*Biogen is a service mark of Biogen N.V. for the provision of research and consultation services relating to all aspects of biotechnology including genetic engineering, fermentation, microbiological conversion, and the purification and processing of the products of biotechnology.

BIOGEN

Assistant Scientist

IMMUNOBIOLOGY

Ortho Pharmaceutical Corporation is a Johnson & Johnson Company committed to excellence and innovation in the health care industry. Our extensive research efforts have created an opportunity for an Assistant Scientist capable of assisting in our biochemical and genetic research programs using recombinant DNA techniques.

The selected candidate must have a minimum of 2 years' experience in one or more of the following areas: cDNA synthesis, plasmid construction, molecular cloning, DNA sequencing, microbial genetics and eukaryotic gene expression. A strong knowledge of biochemical techniques is essential. Academic requirements include an MS in Biochemistry, Microbiology or other related majors, or a BS in the aforementioned, together with a strong background in molecular biology and at least 2 years' appropriate experience.

We are proud to offer a highly competitive salary, comprehensive benefits and the vast resources of belonging to the Johnson & Johnson family of companies. Our beautiful suburban New Jersey location provides easy access to New York City and Philadelphia, while offering a comfortable life style. For immediate consideration, please forward a detailed resume to: Mrs. Beatrice Allen, Dept. S,

ORTHO PHARMACEUTICAL CORPORATION
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 - ☐ \$155 air-surface delivery via Holland

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Address

City State Zip

SM08

POSITIONS OPEN

POSTDOCTORAL RESEARCH POSITION available immediately for studies of regulation of acetyl-CoA carboxylase by covalent phosphorylation. Experience in peptide/protein isolation, general protein sequence techniques mandatory. Send curriculum vitae plus two references to: **Dr. Lee A. Witters, Diabetes Unit, Massachusetts General Hospital, Fruit Street, Boston, Mass. 02114.**

POSTDOCTORAL RESEARCH ASSOCIATE. Ph.D. in biochemistry, biophysics, or related field, at a starting salary of \$16,000 per year. The research interests of the group are centered on chromatin structure and dynamics. Research experience in chromatin studies and biophysical techniques are highly desirable. Please send curriculum vitae and two letters of reference to: **K. E. van Holde, Department of Biochemistry and Biophysics, Oregon State University, Corvallis, Oregon 97331-6503. Telephone: 503-754-4155.** Closing date: 1 September 1983. *Oregon State University is an Affirmative Action/Equal Opportunity Employer which complies with Section 504 of the Rehabilitation Act of 1973.*

RESEARCH ASSOCIATE position available immediately to study microvascular physiology. Current areas of research include local vascular control and pathological effects of hypertension and diabetes in skeletal muscle, intestinal and cerebral vasculatures. Preference will be given to candidates with a background in microcirculation and cardiovascular physiology. Part of the responsibilities of the position will include teaching and/or laboratory instruction. Salary: \$16,000 plus fringe benefits. Send a letter of research interests, curriculum vitae, and at least two letters of reference to: **Dr. H. Glenn Bohlen, Department of Physiology, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, Indiana 46223. Indiana University is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE position available for study of RNA sequences present in mouse oocytes and early embryos. Experience with recombinant DNA techniques or mammalian oocytes-embryos desirable. Position is for 2 years, starting about 1 November 1983. Send curriculum vitae and names of three references to: **Dr. Rosemary Bachvarova, Department of Cell Biology and Anatomy, Cornell University Medical College, 1300 York Avenue, New York, N.Y. 10021. An Equal Opportunity Employer.**

RESEARCH IN IMMUNOLOGY. This is an opportunity to participate in broad based studies of the regulation and sequence of events in B lymphocyte formation. Depending on qualifications, the appointment would be equivalent to a postdoctoral fellowship or entry level staff position. An ideal candidate would hold an M.D. or Ph.D. degree and have completed 1 to 3 years of postdoctoral work in a recognized laboratory. Individuals with relevant expertise in cell kinetics, embryology, biochemistry of membrane glycoproteins or immunoregulatory factors, or molecular biology will be given special consideration. Send letters of inquiry, including résumés, to: **Dr. Paul W. Kincade, Oklahoma Medical Research Foundation, 825 N.E. 13 Street, Oklahoma City, Okla. 73104.**

SENIOR RESEARCH BIOLOGIST (Canada)

A leading Canadian pharmaceutical company with modern research facilities located in Kirkland, Quebec, a suburban community 15 miles from downtown Montreal, has a permanent post available for a research biologist. Candidates should possess a Ph.D. or equivalent in either pharmacology or biochemistry and ideally should have research experience in one or more of the following areas:

- 1) Pharmacology or biochemistry of leukotrienes or prostaglandins,
- 2) Lipid biochemistry,
- 3) Cell culture, and
- 4) Skin diseases.

Reply, in confidence, providing curriculum vitae and list of publications to: **The Employment Manager, Merck Frosst Canada, Inc., P.O. Box 1005, Pointe Claire/Dorval, Quebec, Canada H9R 4P8.**

POSITIONS OPEN

TWO POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS available immediately to investigate carbon metabolism, energy production, and electron transport in the legume nodule. Training required in biochemistry or plant or microbial physiology. Send résumé and names of referees to: **Dr. Thomas A. LaRue, Boyce Thompson Institute, Cornell University, Ithaca, N.Y. 14853.**

RESEARCH ASSOCIATE—To join active laboratory studying intestinal epithelial cell membrane structure and function. Ph.D. in cell biology or related discipline, at least 2 years of postdoctoral experience, and expertise in TEM and freeze-fracture required. Experience in cell fractionation techniques and biochemical analysis of membranes desirable. Potential for affiliation with and teaching in Department of Anatomy. Salary to \$30,000, depending upon qualifications. Send curriculum vitae and three references to: **Dr. Jerry S. Trier, Department of Medicine, Harvard Medical School, Brigham and Women's Hospital, 75 Francis Street, Boston, Mass. 02115. An Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE position available in neuropharmacology. Candidate must have Ph.D. and postdoctoral experience. Stereotaxic and surgical experience with rodents essential. Neurochemical background as well as experience with rodents essential. Neurochemical background as well as experience with HPLC and/or GC/MS is desirable. Please send curriculum vitae to: **V. G. Jordan, Senior Staffing Specialist, CIBA-GEIGY, Summit, N.J. 07901.**

RESEARCH ASSOCIATE/POSTDOCTORAL

Research on islet endocrinology and/or hypothalamohypophyseal-ovarian axis. Preference given to U.S. citizens with Ph.D. in anatomy. Send curriculum vitae and names of three references to:

**Carl R. Morgan, Ph.D.
Department of Anatomy
School of Medicine
East Carolina University
Greenville, N.C. 27834**

Application deadline: 30 September 1983.

An Equal Opportunity through Affirmative Action Employer.

RESEARCH ENGINEER/SCIENTIST

Specialist required to continue sponsored basic research programs related to flight propulsion. Doctoral degree and at least two years of postdoctoral research experience are essential. The nature of the programs also requires that the successful candidate will have demonstrated independent research ability in the fields of combustion and explosions and in the computation of internal transonic flows using Godunov techniques. Position involves full-time research at: **The Turbopropulsion Laboratory, Naval Postgraduate School, Monterey, Calif. 93940.** Salary starts at \$33,046 per annum. Applications should be sent to: **The Director, Code 675F.**

UNIVERSITY OF ALBERTA DEPARTMENT OF PHYSIOLOGY RESEARCH SCHOLAR

The Department of Physiology invites applications for a position as research scholar at the assistant/associate professor rank. The successful candidate must have Ph.D. and/or M.D. degree(s) and at least two years of postdoctoral experience and have demonstrated outstanding ability for independent research. Preference will be given to investigators interested in aspects of cellular and molecular physiology including neurophysiology. This position will be funded through an external agency such as The Alberta Heritage Foundation for Medical Research (AHFMR), but the successful candidate will enjoy the privileges of the university academic rank at which the appointment is made. AHFMR also offers establishment grants for setting up a well-equipped laboratory and for initial operating expenses to the successful candidate. *The University of Alberta is an Equal Opportunity Employer, but in accordance with Canadian employment and immigration regulations, this advertisement is directed to Canadian citizens and permanent residents.* Interested applicants should send their curriculum vitae, outlines of their proposed research, and three names of referees before 30 September 1983 to: **The Chairman, Department of Physiology, University of Alberta, Edmonton, Alberta, Canada T6G 2H7.**

POSITIONS OPEN

RESEARCH ANIMAL SCIENTIST (NUTRITION)/MICROBIOLOGIST. Career Federal Service. Incumbent to conduct integrated research program in gastrointestinal tract-plant ingesta interactions on the digestion and utilization of forages by ruminant animals. Position located at the Roman L. Hruska U.S. Meat Animal Research Center, Clay Center, Nebraska. GS-11/12/13; salary based on qualifications and experience. For applications: **J. Brooks, USDA-ARS-NCR-B67, 2000 West Pioneer Parkway, Peoria, Ill. 61615. Telephone: 309-671-7813.** Candidates must be U.S. citizens. *An Equal Opportunity Employer.*

RESEARCH TECHNICIAN for DNA sequencing work. Should have experience with recombinant DNA, Maxam/Gilbert, or dideoxy sequencing techniques. Send curriculum vitae to: **Dr. Jeff Sellhamer, California Biotechnology, Inc., 2450 Bayshore Frontage Road, Mountain View, Calif. 94043. Telephone: 415-966-1550.**

CONFERENCE

Conference on Applications of Flow Cytometry to Gene Mapping and Chromosome Analysis
Santa Fe, New Mexico—23 to 26 October 1983

Topics: Chromosome analysis and sorting/construction and analysis of recombinant DNA libraries/gene and oncogene mapping strategies/In-situ hybridization/microinjection/chromosome pre-fractionation/application of somatic cell hybrids, chromosome- and DNA-mediated gene transfer techniques/instrument modifications/combined cytogenetic and flow karyotype analyses/new and potential chromosome tags/DNA sequence and chromosome polymorphisms.

Location: Sante Fe Hilton, Sante Fe, New Mexico; 23 to 26 October 1983.

Poster space available. Registration fee: \$70. Preliminary program, including list of speakers, is available upon request. Deadline for applications and submission of abstracts: 1 September 1983. Attendance limited.

Contact: **Dr. L. Scott Cram, National Flow Cytometry Resource, LS-4, MS M888, Los Alamos National Laboratory, Los Alamos, N.M. 87545. Telephone: 505-667-2836.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP IN BIOCHEMISTRY

Candidates should apply who have achieved the degree of Ph.D. or its equivalent. Training and experience must include technical skills in protein biochemistry and enzymology. Preferred are those with training and interest in the biochemistry and molecular biology of glycoprotein lysosomal enzymes. Two-year minimum commitment; salary negotiable. Apply:

**John A. Barranger, M.D., Ph.D.
NIH, Building 10, Room 4N-248
Bethesda, Maryland 20205**

POSTDOCTORAL FELLOWSHIP FOR RESEARCH TRAINING IN MEDICAL MYCOLOGY

Applications are invited for a 1-year fellowship (renewable) in medical mycology with special emphasis in regulation of morphogenesis, membrane biology, host-parasite relationships, and extended training in laboratory medical mycology. Background of the applicant should include recent Ph.D., M.D., D.V.M., or D.D.S. degree with training in mycology, microbiology and/or biochemistry. Inquiries should be addressed to: **George Kobayashi, Ph.D., Department of Internal Medicine, Division of Infectious Diseases, Box 8051, Washington University, School of Medicine, St. Louis, Mo. 63110.**

POSTDOCTORAL FELLOWSHIP to study bovine coronavirus: characterization of antigens involved in immune recognition; and the identification of genes for coding for these antigens and their expression in suitable prokaryotes. A strong background in biochemistry is essential and experience in cloning is preferred. Salary: \$21,000 per annum. *Canadian citizens and landed immigrants will be given first consideration but others are encouraged to apply.* Send curriculum vitae and the telephone numbers of three references to: **Dr. Geoffrey Hudson, 124 Veterinary Road, University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N 0W0.**

TUMOR IMMUNOLOGIST

An opportunity for a creative and flexible Scientist to join our tumor biology group to do basic and applied research in tumor immunology. The successful candidate we are seeking will have a PhD with 1 or 2 years of post doctoral experience in tumor immunology. An interest in NK cell activation and tumor metastases as evidenced by publications would be helpful. The potential candidate should be highly motivated and should be able to work in collaboration with the other Scientists in the group in searching for new approaches for the treatment of cancer and metastases.

Inquiries should be directed to:

Merrell Dow



**PSM MERRELL DOW
RESEARCH CENTER**

**2110 East Galbraith Road
Cincinnati, Ohio 45215**

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Carolina Conference 1983

Gene Transfer And Expression



University of
North Carolina
at Chapel Hill

Program in Molecular Biology & Biotechnology

Carolina Conference 1983 will be held October 16 through 19 at the Quail Roost Conference Center, North Carolina. The chairs will be George Scangos (DNA Mediated Transformation), John Carbon (Cis-acting Elements), Joe Sambrook (Vectors), Phillip Bassford (Protein Secretion), plus a

session on gene amplification. The total cost for room, board and registration is \$250. Apply by August 30 to Diane Lawton, Program in Molecular Biology and Biotechnology, 125 MacNider Building 202H, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.



UNIVERSITY OF CAPE TOWN

Senior Lecturer/ Principal Specialist in Anatomy

Applications are invited for the post of Head of the sub-department of Histology/Cell Biology, presently entitled "Histology", at Senior Lecturer/Principal Specialist level. This post is seen as a key appointment in efforts by the School of Biomedical Sciences to promote the development of formal training and research in Morphological Bioscience at the microscopic level (Cell Biology).

The post involves teaching at undergraduate and postgraduate levels, research, administration, and responsibility for an electron microscope. Proven research and general academic ability are essential. A medical qualification will also be a recommendation.

Appointment will be made on merit, according to qualifications and experience, under the terms of the joint agreement between the University of Cape Town and the Cape Provincial Administration at an appropriate salary against a post carrying a fixed salary of R30 225 per annum. In addition, a service bonus of nearly one month's salary is payable annually, and if the successful candidate is a medical practitioner a non-pensionable allowance may be payable by the Cape Provincial Administration.

Staff benefits include generous leave privileges, a housing subsidy scheme administered according to State regulations, pension fund, medical aid and group life assurance schemes and a 75% remission on tuition fees for dependants at UCT.

Applicants should submit a curriculum vitae stating qualifications, teaching and research experience, interests and publications, present salary, the date duty could be assumed and the names and addresses of three referees whom the University may approach.

Further information should be obtained either from Mr J Hennings, SA Universities Office, Chichester House, 278 High Holborn, London WC1V 7HE, or from the Registrar (Attention: Appointments Office), University of Cape Town, Private Bag, Rondebosch, 7700, South Africa, by whom applications (quoting ref. no. AQ/364) must be received not later than 31 August 1983.

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

Further information on the implementation of this policy is obtainable on request.



Dean or Director of Computer Planning and Operations

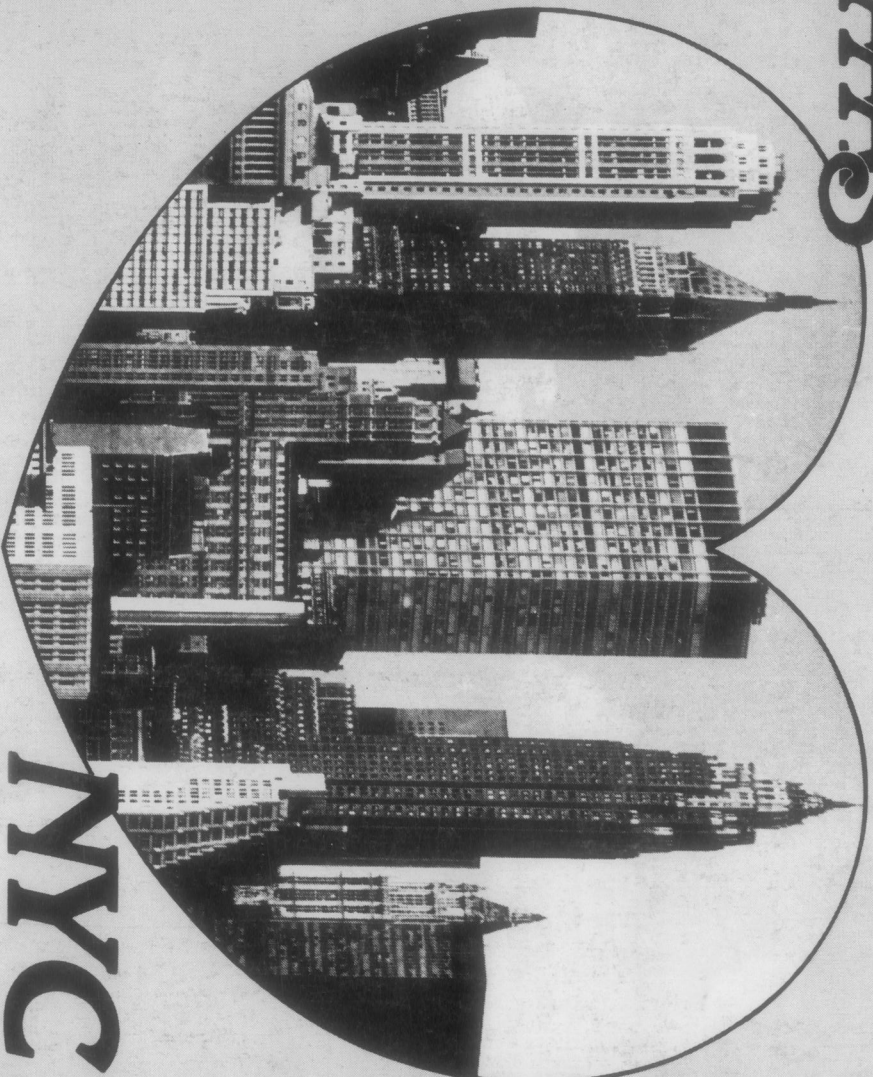
The Faculty of Arts and Sciences seeks a qualified individual to coordinate the planning and operation of Faculty-supported computer-related activities, and to advise the Dean of the Faculty in these areas. Responsible for planning, acquisition, and technical and financial management of computer facilities and services. In collaboration with faculty groups, develops three-to five-year plans for computer activities, and participates in development of computer network.

Candidates for this position should have: administrative and management experience in a technological area, preferably involving direct experience with computers; familiarity with major current trends in computer and communications technologies; ability to interact and communicate effectively with both technical and non-technical people at all professional levels. Graduate degree in relevant professional field and familiarity with university environment strongly preferred.

Applications, including names of references, should be sent by September 15, 1983, to Dean Richard G. Leahy, University Hall 20, Harvard University, Cambridge, Massachusetts 02138. An equal opportunity/affirmative action employer.

HARVARD UNIVERSITY

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