

RESEARCH NEWS

(Continued from page 855)

looping-out model, if it is correct, is an unexpected development. Darnell, who is one of the investigators studying the hnRNA's, thinks that the new results are compatible with his views about their role but says that he was surprised to learn that interior sequences, not just those on the ends, might be removed from the molecules.

If several interior sequences are excised from the precursors, then it might be possible to detect a series of hnRNA's that show progressive loss of interior nucleotide segments. The experiments are extremely complicated, but Sharp and Berget have preliminary evidence for the existence of these intermediates in RNA prepared from the nuclei of cells infected with adenovirus.

So far, the bulk of the evidence indicates that during messenger synthesis, noncoding sequences become attached to sequences coding for proteins. But splicing may also occur within structural sequences themselves. Weissman and his colleagues say that the section of SV40 DNA that codes for the T antigen, a large viral protein produced early in infection, contains a number of termination signals whose presence in messengers normally stops protein synthesis. Weissman says that, if the size estimate for the T antigen is correct, either there is selective suppression of the termination signals during translation of the T antigen messenger or else the messenger must be synthesized in such a way that the signals are excluded from it. Further work will be required to determine whether this situation is comparable to the intramolecular splicing seen with the late viral messengers.

The big question is whether a similar phenomenon occurs during gene expression in nucleated cells themselves. The existence of spliced cellular mRNA's has not been demonstrated directly, but several of the investigators doing the viral work cite recent results from other laboratories that could be interpreted as supporting the existence of spliced mammalian messengers. However, the researchers who are actually doing this work currently disavow any such interpretation. They say that other possible explanations have not been eliminated. Nonetheless, the recent developments will no doubt stimulate a lot of new research and encourage investigators who until now have experienced more frustration than success in their studies of gene expression in the cells of higher organisms.

—JEAN L. MARX

BOOKS RECEIVED AND

BOOK ORDER SERVICE

(Continued from page 858)

Lectures on Structure and Significance of Science. H. Mohr. Springer-Verlag. New York, 1977. xii, 228 pp. \$16.80. To order this book circle No. 480 on Readers' Service Card.

Legacies in Ethics and Medicine. Chester R. Burns, Ed. Science History Publications (Neale Watson). New York, 1977. viii, 326 pp. \$7.95.

Mineralogy of Arizona. John W. Anthony, Sidney A. Williams, and Richard A. Bideaux. University of Arizona Press, Tucson, 1977. viii, 256 pp., illus. Cloth, \$22.50; paper, \$9.75.

The National Health System in Denmark. A Descriptive Analysis. Dorte Gannik, Erik Holst, and Marsden Wagner. National Institutes of Health, Bethesda, Md., 1977 (available from the Superintendent of Documents, Washington, D.C.). vi, 86 pp. Paper. \$1.15. A Publication of the John E. Fogarty International Center for Advanced Study in the Health Sciences.

The Nation's Use of Health Resources. 1976 Edition. National Center for Health Statistics. Rockville, Md., 1977. x, 104 pp. Paper.

Principles of Zoology. Willis H. Johnson, Louis E. Delaney, Eliot C. Williams, and Thomas A. Cole. Holt, Rinehart and Winston. New York, ed. 2, 1977. xii, 748 pp., illus. + plates. \$16.95.

Problem Solving with FORTRAN. Donald D. Spencer. Prentice-Hall, Englewood Cliffs, N.J., 1977. xiv, 320 pp., illus. Paper. \$9.95.

Problems in Calculus and Analytic Geometry. Richard J. Palmaccio. J. Weston Walch. Publisher, Portland, Me., 1977. iv, 148 pp. Spiral bound. \$3.50.

Proceedings of the Second International Symposium on Clinical Enzymology. Norbert W. Tietz, Albert Weinstock, and Denis O. Rodgerson, Eds. American Association for Clinical Chemistry, Washington, D.C., 1976. xiv, 338 pp., illus. \$15.

The Sewing Machine. Its Invention and Development. Grace Rogers Cooper. Published for the National Museum of History and Technology by Smithsonian Institution Press. Washington, D.C., ed. 2, 1976. x, 238 pp., illus. \$14.95.

Social Networks. A Developing Paradigm. Samuel Leinhardt, Ed. Academic Press, New York, 1977. xxxiv, 466 pp., illus. \$17.50. Quantitative Studies in Social Relations. To order this book circle No. 481 on Readers' Service Card.

Solid-Liquid Phase Equilibria. Jaroslav Nývlt. Elsevier, New York, 1977. 248 pp., illus. \$32.75.

Space and Energy. Proceedings of a symposium, Lisbon, Sept. 1975. L. G. Napolitano, Ed. Pergamon, New York, 1977. viii, 488 pp., illus. \$50. To order this book circle No. 482 on Readers' Service Card.

Syntactic Pattern Recognition, Applications. K. S. Fu, Ed. Springer-Verlag, New York, 1977. xii, 272 pp., illus. \$37.40. Communications and Cybernetics, 14. To order this book circle No. 483 on Readers' Service Card.

World Economy and East-West Trade. Papers from a workshop, Vienna, Oct. 1975. F. Nemschak, Ed. Springer-Verlag, New York, 1976. 208 pp. Paper. \$19.80. East-West European Economic Interaction Workshop Papers, vol. 1. To order this book, circle No. 485 on Readers' Service Card.

NOW... Revolutionary illumination - by fiber optic RingLight

You have never seen illumination like this. Light from a halogen source is piped efficiently by glass fibers disposed distally into an annulus or 4 symmetrical points. It arrives brilliantly cold -- close to the work piece.

Working distance may be varied to suit application and achieve high through low incidence illumination.

Use on microscopes, augment illumination on projectors, high precision machine tool set-ups etc. -- applications limited only by your imagination.

H/I HACKER INSTRUMENTS INC.

Box 657, Fairfield, N.J. 07006/(201) 226-8450

Circle No. 135 on Readers' Service Card

TEKTRONIX 4051 USERS



Workspace Memory

MAX 2000 is the only low cost, fully compatible workspace memory that upgrades your 4051 to its top potential 32K byte operating capacity.

HIGH RELIABILITY . . . We specify a complete one-year warranty.

THE PRICE . . . \$2500

THE BENEFITS . . . Save at least \$1300—enough to enhance your 4051 with our ROM Packs . . . or invest your savings in one of our floppy disc systems.

Second Source Industries

735 ADDISON STREET
BERKELEY, CALIFORNIA 94710
TELEPHONE: (415) 848-6600

Circle No. 161 on Readers' Service Card

Personnel Placement

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, or national origin.

Positions Wanted: 40¢ per word; \$10 minimum charge, per insertion. \$4 extra for use of box number. Prepayment required. Rate available only to individuals; personnel agencies, companies, colleges, and universities take display rate for all advertising.

Display (Positions Open, Market Place, and so forth): \$145 per 25 millimeters (1 column inch), minimum, per insertion (25 millimeters equals 10 lines of 50 spaces and characters each). Ads over 25 millimeters billed at \$5.80 per millimeter. No charge for use of box number. Rates net. No agency commission for ads under 4 inches. No cash discount. Prepayment required for foreign advertising. Purchase orders and billing information required for all other ads.

Advertising closing is each Wednesday, 3½ weeks before Friday issue date requested. Send copy for all positions wanted ads and display ads under 5 inches to:

SCIENCE, Room 207
1515 Massachusetts Ave., NW
Washington, D.C. 20005
Telephone: 202-467-4456

Send copy for display ads, 1/6 page and larger, to:

Scherago Associates, Inc.
11 West 42nd Street
New York, N.Y. 10036
Telephone: 212-736-1858

Blind Ad replies should be addressed as follows:

Box (give number)
SCIENCE
1515 Massachusetts Ave., NW
Washington, D.C. 20005

POSITIONS WANTED

Biochemist, Ph.D., seeks faculty/research/administrative position. See Jourdikian ad in the 12 August 1977 issue of SCIENCE.

8/26; 9/2, 9/9, 9/16, 9/23, 9/30; 10/7

Cellular Immunologist: Ph.D. 1974. Broad research experience in cellular immunology, tissue culture, animal studies, oncology. Postdoctoral experience. Publications. Seeking research position in industrial/research institute. Box 313, SCIENCE. X

Marine Biologist. Ph.D. Expertise in marine invertebrate, poikilothermic and mammalian cell culture, virology, ecology, and electron microscopy. Teaching and research background, publications. Desires position teaching, research, or administration. Will relocate. Phone 201-635-7869. 16 Sussex Avenue, Chatham, New Jersey 07928. 8/26; 9/2

Professional experienced in **Microbiology, Biochemistry, and Experimental Pathology**. Seeks postdoctoral, research associate, and/or teaching position. Eastern United States preferred. Box 324, SCIENCE. X

Microbiologist, M.S. Seven years of research experience in pharmaceutical industry including tissue culture evaluation of anticancer agents, cell-mediated immunity, and mutagenicity. Supervisory and teaching experience. Will consider position in industry, government, and university. Box 325, SCIENCE. X

Microsurgery. Transplantation immunology laboratory supervisor experienced in rat and mice organ transplants such as kidney, spleen, bowel, nerve, and so forth. Also cellular and humoral immunity tests. Seeks position in industry and/or research. Write Dr. Racelis, 124 East 91 Street, New York, N.Y. 10028. 8/26; 9/2, 9/9

Natural Product Chemist/Pharmacist. Ph.D. 1977. Broad research and teaching experience. Publications. Experience in fermentation, isolation, structure elucidation, biosynthesis, organic synthesis, and product development in pharmaceuticals. Desires academic/research, government, or industrial position. Box 326, SCIENCE. X

Physiologist/Zoologist seeks immediate instructorship. University faculty experience in teaching zoology, biology, anatomy, and physiology. M.S. plus 30. Publication. Relocate. Contact A. Grant, Apartment 18, 365 Bonair Street, La Jolla, Calif. 92037. Telephone: 714-454-6970. 8/26

POSITIONS WANTED

Neurophysicist/Physicist. Ph.D. 1964. Interdisciplinary scientist/technologist. Extensive research experience with energy/information transfer/transduction mechanisms in hierarchially organized physical and biological systems. Established/managed several large RDT&E programs. Interested in establishing a physics-based multidisciplinary neurophysics RDT&E program. Seeks senior level research position in research institute or university. Box 328, SCIENCE. X

Zoologist/Ecologist. Ph.D. Foreign-born citizen. Research and teaching experience. Publications. Broad experience in parasites and zooplankton taxonomy, aquatic community ecology. Seeks academic/research, government, museum, or consultant position. Box 327, SCIENCE. X

POSITIONS OPEN

ABSTRACTORS (FOREIGN LANGUAGE)

The Franklin Institute Research Laboratories has openings for full-time, part-time, or free-lance abstractors for foreign-language biomedical literature. A master's degree or its equivalent in biology or medicine is desirable. Please send résumé to **Personnel Department, Franklin Institute, Research Laboratories, 20th and Parkway, Philadelphia, Pa. 19103**. Equal Opportunity Employer.

Biology Overseas. American University of Beirut in Lebanon anticipates openings for **ASSISTANT OR ASSOCIATE PROFESSORS** starting February 1978 for specialists with background in ecology and/or development biology and in October 1978 for specialists in plant physiology and/or cell biology. Ph.D. required with teaching experience and proven research record to teach undergraduate courses and advise graduate students and supervise research activities. Qualified candidates should airmail résumé and three letters of recommendation to **Chairman, Biology Department, American University of Beirut, Beirut, Lebanon**, with copy of résumé to **AUB Personnel Services, 22nd Floor, 380 Madison Avenue, New York, N.Y. 10017**. An EO/AA Employer.

ANATOMIST: Assistant or Associate Professor

Preference will be given to candidates with demonstrated excellence in teaching gross anatomy and a funded research program which complements existing programs in the department. Minority candidates are encouraged to apply. Send resume to Search Committee, Department of Anatomy, University of Massachusetts Medical Center, 55 Lake Ave., N., Worcester, MA 01605.

The University of Massachusetts Medical Center is an affirmative action equal opportunity employer.

ASSISTANT PROFESSOR—DEVELOPMENTAL NEUROBIOLOGY. A faculty position is available at the assistant professor level. Applicant should have an established program, in any of the disciplines of neurobiology, for studying the development of the nervous system, but must be able to teach anatomical subjects. Send curriculum vitae, a brief summary of research interests, and names of three references to: **Search Committee, Department of Anatomy, Case Western Reserve University, Cleveland, Ohio 44106**, not later than 15 October 1977. An Equal Opportunity/Affirmative Action Employer.

TEXAS TECH UNIVERSITY SCHOOL OF MEDICINE

Department of Pharmacology and Therapeutics

PHARMACOLOGIST: ASSISTANT PROFESSOR. Ph.D. or M.D., with at least 2 years of postdoctoral research training, required 1 January 1978, with a commitment to teaching medical pharmacology and participating in the pharmacology graduate program. Appointee expected to conduct a vigorous independent research program. Salary commensurate with qualifications and experience. Candidates should submit curriculum vitae and three names for reference purposes to: **Dr. Alexander D. Kenny, Chairman, Department of Pharmacology and Therapeutics, Texas Tech University School of Medicine, Lubbock, Texas 79409**. An Equal Opportunity/Affirmative Action Employer.

ASSISTANT OR ASSOCIATE PROFESSOR OF ZOOLOGY, PHYSIOLOGICAL ECOLOGIST, Ph.D. Preference will be given to individuals with previous faculty or formal postdoctoral experience. Responsibilities include teaching basic and advanced zoology courses in physiology. The successful candidate will be expected to develop a research and teaching program in physiological ecology and to direct graduate students in this discipline. The person will have the option of affiliating with the Graduate Program in Ecology. The position is available beginning 1 January 1978, or thereafter. Curriculum vitae and three letters of recommendation must be received by 15 September 1977. Reply to: **Dr. Arthur C. Echtenacht, Department of Zoology, University of Tennessee, Knoxville, Tennessee 37916**. An Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR, NEUROLOGY. Position available January 1978 for a Ph.D. with background in molecular biology who is familiar with central nervous system and interested in studying the molecular biology of chronic viral infections. Salary depends upon qualifications. Send curriculum vitae to **Dr. Leslie Weiner, The Grant Neuroscience Laboratories, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles, California 90033**. Equal Opportunity/Affirmative Action Employer.

ONCOLOGY RESEARCH CENTER BOWMAN GRAY SCHOOL OF MEDICINE WAKE FOREST UNIVERSITY

Applications are invited for two positions in tumor immunology (**ASSOCIATE AND ASSISTANT PROFESSOR**). Candidates should be established investigators and capable of developing their own program. There will be opportunities for basic science and clinical interdisciplinary research activities.

Dr. Charles L. Spurr, Director ORC; Dr. Quentin Myrvik, Professor and Chairman, Department of Microbiology, 300 South Hawthorne Road, Winston-Salem, N.C. 27103. An AA and EOE.

BIOCHEMIST. Research position in laboratory dealing with physiology and biochemistry of human platelets. Experience with spectrophotometric, fluorimetric, and chromatographic techniques and with the use of radioisotopes is needed. Send curriculum vitae and three references to **James W. Davis, M.D., VA Hospital, 4801 Linwood Blvd., Kansas City, Mo. 64128**. An Equal Opportunity/Affirmative Action Employer.

THOMAS HUNT MORGAN SCHOOL OF BIOLOGICAL SCIENCES UNIVERSITY OF KENTUCKY

CELL BIOLOGIST/ASSISTANT PROFESSOR. Qualifications: Ph.D. degree, postdoctoral experience, the ability to develop an active and competitive research program and to teach introductory and advanced courses in cell biology. Send curriculum vitae, a brief description of professional experience, a summary of teaching and research interests, and the names of at least three references to: **Office of the Director, T. H. Morgan School of Biological Sciences, University of Kentucky, Lexington, Kentucky 40506**. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer.

Department of Pharmacology. **ASSISTANT PROFESSOR OF PHARMACOLOGY**, Ph.D. Applications are invited for four positions at the level of Assistant Professor. We are interested in candidates with research experience in one of the following areas: Autonomic/Cardiovascular, Neuropharmacology/Neurochemistry, Toxicology, Clinical Pharmacology/Drug Metabolism or Clinical Pharmacology/Cardiovascular. Participation is expected in teaching medical, dental, pharmacy, and graduate students. Applicants should send a curriculum vitae, including a full list of publications, summary of teaching duties and research experience, and the names of three references to **Arthur H. Briggs, M.D., Chairman, Department of Pharmacology, University of Texas Health Science Center at San Antonio, 7707 Floyd Curl Drive, San Antonio, Texas 78284. An Equal Opportunity/Affirmative Action Employer.**

BIOPHYSICIST

The Marine Biological Laboratory anticipates a position for a **SENIOR SCIENTIST** commencing 1 October 1977. This research position requires extensive experience in all electron microscopical techniques, in addition to other biophysical methods. A Ph.D. plus ten or more years of experience is required. Please send résumé to **Dr. Morton Maser, Marine Biological Laboratory, Woods Hole, Mass. 02543. The MBL is an Equal Opportunity Employer.**

CHAIRPERSON, DEPARTMENT OF OCCUPATIONAL AND ENVIRONMENTAL HEALTH. Major state university medical school, situated in a heavily industrial region, seeks an experienced environmental scientist to reorganize and rebuild the existing department. A large building, well equipped, with unusual inhalation toxicology support facilities is devoted to the departmental activities. The chairperson is expected to participate in organizing research and training programs in the areas of toxicology and industrial medicine. Candidates should send curriculum vitae to **Dr. Bernard H. Marks, Department of Pharmacology, Wayne State University School of Medicine, Detroit, Michigan 48201. The University is an Equal Opportunity Employer.**

CLINICAL IMMUNOLOGIST

With strong research interests in transplantation and/or cancer immunology sought to develop a clinical immunology service for our university and affiliated hospitals, particularly to support an active renal transplantation program. Candidate should be interested in interaction with colleagues involved in tumor immunology studies. Faculty appointment and salary commensurate with qualifications and experience. Forward curriculum vitae and list of references to **Dr. D. M. Goldenberg, Department of Pathology, University of Kentucky Medical Center, Lexington, Kentucky 40506, before 1 October 1977. Equal Opportunity/Affirmative Action Employer.**

DEAN OF PHARMACY UNIVERSITY OF PITTSBURGH

The university invites applications and nominations to be submitted by 30 September 1977. Deanship is currently open. Applicants should possess an earned Ph.D. or equivalent in pharmacy-related discipline, demonstrated scholarship, research/teaching ability, evidence of administrative and leadership potential, and recognition within profession. Send curriculum vitae and references to **E. Montgomery, 12th Floor, Scaife Hall, University of Pittsburgh, Pittsburgh, Pennsylvania 15261. Equal Employment Opportunity/Affirmative Action Employer.**

DIRECTOR OF EDUCATION AND CLINICAL TRAINING: for the Department of Psychology and Social Sciences at Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois. One opening, Ph.D. in clinical psychology with 3 to 5 years of experience in APA-approved predoctoral internship program. Responsibilities are broad, including coordination of the department's internship training program as well as the department's input into an extensive behavioral science curriculum in Rush Medical College. Strong background and interest in teaching and psychotherapy are required. Person should be able to contribute strongly to a program of graduate studies leading to the Ph.D. Position available immediately. Send curriculum vitae and three reference letters to:

**Cecilia Brocken, Ph.D.
Rush-Presbyterian-St. Luke's Medical Center
1753 West Congress Parkway
Chicago, Illinois 60612**

An Equal Opportunity/Affirmative Action Employer

26 AUGUST 1977

SENIOR PROJECT DEVELOPMENTAL BIOLOGIST

Ph.D.

Merck Sharp & Dohme, a leader in the pharmaceutical industry, is offering an excellent opportunity to join our Biological Quality Control Staff.

Responsibilities for this position include conducting studies leading to the solution of testing problems and the development of new techniques and instrument applications to be used in routine testing areas in Biological Quality Control. Candidates must have a Ph.D. in biology or microbiology with experience and/or training in virology, serology, and tissue culture. Experience in chromatographic techniques and radioimmunoassay is desirable.

At our suburban Philadelphia location, you will enjoy a professional environment with excellent salary and benefits.

If interested, please send résumé of education and experience with salary requirements to:

MR. JACQUES P. KUENY

MERCK SHARP & DOHME

Div. of Merck & Co., Inc.

West Point, Pa. 19486

An Equal Opportunity Employer

RESEARCH OPPORTUNITIES FOR Ph.D.'S WITH WARNER-LAMBERT/ PARKE-DAVIS RESEARCH DIVISION

Excellent opportunity to join a progressive research team designed for continuing growth.

IMMUNOLOGIST (MALARIA)
Design and implementation of programs for development of a malaria vaccine. Emphasis will be placed on immunologic and serologic evaluation of experimental preparations. Experience with mammalian plasmodia.

PHARMACOLOGIST (CARDIOVASCULAR)
Evaluate and explore new approaches to antihypertensive drug discovery. One or two years of postdoctoral experience in hypertension would be highly desirable.

PHYSIOLOGIST (GASTROINTESTINAL)
Participate in identification and development of chemical compounds having gastrointestinal effects. Experience in area of antisecretory and antitumor research highly desirable.

IMMUNOLOGIST (ARTHRITIS)
Assist in planning the development of new test systems for examining compounds for their value in treatment of rheumatoid arthritis. Experience in fields related to inflammatory disease, highly desirable.

Résumé and other pertinent information should be sent to:

**Personnel Supervisor, Research
2800 Plymouth Road
Ann Arbor, Michigan 48106**

An Equal Opportunity Employer, M/F

RESEARCH TOXICOLOGIST

Searle Laboratories, the pharmaceutical division of G.D. Searle & Co., has an immediate opening within our Product Safety Assessment Department for a Research Toxicologist. Responsibilities to include performing toxicological studies employing predetermined protocols, supervision, data acquisition and preliminary report writing.

Candidates should possess an MS in Biological Sciences and training or experience in toxicology. Background should include a working knowledge of animal handling, data handling and good laboratory practices.

Reply with resume including salary history in confidence to:

SEARLE

Larry Kedzior

**Searle
Laboratories
P.O. Box 5110
Chicago, IL 60680**

*Equal Opportunity M/F . . .
A Practice, Not Just a Policy*

DIRECTOR HEALTH EFFECTS RESEARCH LABORATORY—RTP

The U.S. Environmental Protection Agency is seeking a Director of its Health Effects Research Laboratory in Research Triangle Park, North Carolina. The incumbent of this position will be responsible for planning, developing, organizing, directing, and implementing a number of national research, development, and demonstration programs in the broad areas of health effects of environmental pollutants; directing and overseeing the review and evaluation of both grant and contract proposals for research, development, and demonstration projects; serving as a principal scientific adviser to top-level agency officials; coordinating laboratory activities with representatives of foreign, state, and municipal governments and with other federal agencies, industry, academia, and private organizations; developing and maintaining close working relationships with universities, private research organizations, and other governmental research laboratories throughout the nation; and assuring the timely and effective dissemination of the laboratory's research findings to the appropriate user-community.

Candidates must have a bachelor's or higher level degree in either the biological, health, or physical sciences and must be by background and experience especially qualified to direct this laboratory. At least three or more years of professional experience, including experience in the direction and management of a complex professional program encompassing a variety of functions and in supervising multidisciplinary scientific personnel, are required. One year of this experience must have been at a level of difficulty comparable to the grade GS-15/16 level in the federal service.

Location: Research Triangle Park, North Carolina.

Salary range: \$39,629 to \$47,500 plus Civil Service benefits.

Contact: Please send a detailed résumé including salary history or a completed Standard Form 171 (Personal Qualifications Statement), which is available in Federal Job Information Centers and Federal Government personnel offices, to reach EPA no later than 29 September 1977, to **Mrs. Edna Morse (PM-212), Personnel Management Division, Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.**

An Equal Opportunity Employer

POSITIONS OPEN

DEAN—VETERINARY MEDICINE AND BIOMEDICAL SCIENCES

Colorado State University is requesting applications for the position of Dean of the College of Veterinary Medicine and Biomedical Sciences. Applicants must have a D.V.M. and preferably a Ph.D. degree. Previous experience in teaching, research, and service activities in the field of veterinary medicine is essential. Applicants with administrative experience in interdisciplinary programs, budgeting, and financial affairs and who have been active in professional organizations are desirable. Applicants should be interested in the innovative teaching of professional, undergraduate, and graduate students. Salary commensurate with experience. Nominations of candidates or direct applications consisting of a current professional résumé and any supportive documentation should be sent by 31 October 1977 to **Dean Lionel Baldwin, Chairman of Search Committee, College of Engineering, Colorado State University, Fort Collins, Colorado 80523.**

Colorado State University is an Equal Opportunity Employer and complies with Title IX requirements. Complaints should be filed with the Office of Equal Opportunity, Student Services Building.

DIRECTOR, PERIODONTAL RESEARCH CENTER. The College of Dentistry, University of Illinois at the Medical Center, Chicago, is developing a center for research in the biology of periodontal disease, and is seeking a director for the center. The responsibilities of the director will include directing research, coordinating the research activity of others, and having a major role in planning the future of the center. Applicants should have formal training in periodontology and a Ph.D. in one of the life sciences, plus a demonstrated ability to conduct an active research program. Send a curriculum vitae and three letters of recommendation to **Dr. John Thorpe, Associate Dean for Advanced Education and Research, Chairman of the Search Committee, College of Dentistry, University of Illinois at the Medical Center, 801 South Paulina Street, Chicago, Illinois 60612. The University of Illinois is an Equal Opportunity/Affirmative Action Employer.**

DEPARTMENT OF BIOLOGY, UNIVERSITY OF NORTH DAKOTA, seeks one or more **VISITING ECOLOGISTS.** Appointment will be for the period of 1 January to 5 May 1978. Proposals for shorter periods of residence will be considered. Apply before 15 October 1977. Salary to \$5500 contingent on specific period of residence. Responsibilities include teaching an advanced course in ecology and consultation with students and faculty. Applications shall consist of a proposal, curriculum vitae, three letters of recommendation, and copies of publications. Proposals must include a course description, proposed period of residence, and statement of interaction with students and faculty. Send applications to **Dr. Robert W. Seabloom, Department of Biology, University of North Dakota, Grand Forks, N.D. 58202.**

An Affirmative Action/Equal Opportunity Employer

ELECTRON DIFFRACTIONIST

Ph.D. Research in electron diffraction of hydrated protein crystals. EM, electron (or x-ray) diffraction, electron scattering theory, inelastic and dynamic scattering theory, programming experience essential. Salary \$13,404 (3.5 percent annual increments). Send curriculum vitae and three references to **Dr. D. F. Parsons, Electron Optics Laboratory, Division of Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, N.Y. 12201.**

FACULTY POSITION

Public Health/Medical Microbiologist. To be in charge of M.P.H. and Dr.P.H. program in Public Health Laboratory Practice. Broad experience in public health or clinical microbiology required. Experience in laboratory administration required. Must have doctorate and be qualified or eligible for qualification by the American Board of Medical Microbiology. Academic rank and salary dependent on experience and qualifications. Please send curriculum vitae, publications, and three references to **Dr. Albert V. Hennessy, Laboratory Practice Search Committee, Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, Michigan 48109. A nondiscriminatory, Affirmative Action Employer.**

POSITIONS OPEN

FACULTY POSITION—BIOCHEMIST

Applications are invited for a position of assistant professor of biochemistry in the Division of Nutritional Sciences at Cornell University. Teaching responsibilities include teaching at the graduate or undergraduate level. Research interests could be varied and should be in areas broadly relevant to nutrition such as vitamins and coenzymes, regulatory mechanisms, steroid metabolism. Candidates should possess a doctoral degree in biochemistry and postdoctoral experience. The successful applicant will have a dual appointment in the Division of Nutritional Sciences and in the Section of Biochemistry, Molecular, and Cell Biology. Please send a curriculum vitae and three letters of recommendation to:

**Andre Bensadoun
Division of Nutritional Sciences
Cornell University
Ithaca, N.Y. 14853**

Closing date for application is 15 October 1977.

Cornell University is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS IN MECHANICAL ENGINEERING

The State University of New York at Buffalo has faculty openings for teaching and research in materials, processing and manufacturing, and in systems and design. Applicants should have a strong background in the most modern aspects of their particular specialties in mechanical engineering. Rank and salary are open for these positions. The opening in materials, processing, and manufacturing may be filled as early as 18 January 1978. We will consider both new Ph.D.'s and candidates already well established in their field. The department will have extensive opportunities for new research and teaching initiatives in occupying its new quarters on our new suburban campus. Our extensive laboratory space there will be accompanied by very substantial capital funds for new instruments and equipment. Send résumé and the addresses of professional references for the opening in materials, processing, and manufacturing, by 1 November 1977 to **Professor Benjamin Gebhart, Chairman, Department of Mechanical Engineering, Parker Engineering, State University of New York at Buffalo, Buffalo, N.Y. 14214.** For the other opening the date is 1 March 1978. *SUNYAB is an Affirmative Action and Equal Opportunity Employer.*

FACULTY POSITION. Department of Poultry Science seeks faculty member with interest in research and teaching in avian sciences. Applicant must have Ph.D. Preferred research areas include reproductive physiology, embryology, or endocrinology. Position available 1 January 1978; closing date for applications 31 August 1977. Apply to **Head, Department of Poultry Science, The Pennsylvania State University, 213 Animal Industries Building, University Park, Pa. 16802. An Equal Opportunity Employer.**

THE UNIVERSITY OF MICHIGAN Department of Surgery

FACULTY POSITION available in the Department of Surgery, University of Michigan. Must be certified or Board-eligible in orthopaedic surgery. Must show some evidence of scholarly endeavor with published articles in a national journal, honors, recognition indicating potential as a faculty member in orthopaedic surgery. It is expected that the candidate will participate in clinical and basic research. Candidate will also take responsibility for patients admitted to Wayne County General Hospital. Send résumé to **Box 329, SCIENCE, Code 400F0. An Affirmative Action, nondiscriminatory Employer.**

IMMUNOGENETICIST or CELLULAR IMMUNOLOGIST

With strong research interest in cancer and membranology, sought for academic position in cancer immunology program of Division of Experimental Pathology. Candidate should have demonstrated ability to secure research grant funds, and should be interested in collaborative studies. Faculty appointment and salary commensurate with qualifications and experience. Forward curriculum vitae and list of references to **Dr. D. M. Goldenberg, Department of Pathology, University of Kentucky Medical Center, Lexington, Kentucky 40506, before 1 October 1977. Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

FACULTY POSITION IN NEUROANATOMY

The Department of Cell Biology is seeking a junior-level faculty member with either the M.D. or Ph.D. degree. Formal teaching duties include teaching of neuroanatomy in a neurosciences medical school course. The individual sought will be expected to establish an independent research program in an active research environment. Nominations or curricula vitae, including a list of publications and names of references should be sent to:

**Dr. D. J. Woodward
Faculty Search Committee
University of Texas Health Science Center at Dallas
Southwestern Medical School
5323 Harry Hines Boulevard
Dallas, Texas 75235**

UTHSC is an Equal Opportunity/Affirmative Action Employer.

INSTRUCTOR IN BIOCHEMISTRY

The Biochemistry Department of the University of Alabama in Birmingham is seeking candidates for a permanent faculty position. Applicants must have a Ph.D. in chemistry, five or more years of post-doctoral experience in structural studies by x-ray diffraction, and research interests in crystallographic studies of proteins and calcium complexes of natural substances. Résumés must include research proposals, curriculum vitae, transcripts, and three letters of reference. *An Equal Opportunity/Affirmative Action Employer.* Send materials to: **Department of Biochemistry, University of Alabama in Birmingham, University Station, Birmingham, Alabama 35294.**

NEUROPSYCHOLOGY ASSOCIATE OR FULL PROFESSOR

The Department of Psychology, University of California, Los Angeles, has a faculty opening effective 1 July 1978 in the area of human neuropsychology. The position is at the tenure associate or full professor level, but more junior candidates with strong research records will be considered. Applicants should have strong research records and teaching interests in clinical neuropsychology, that is, neurologic and other medical applications, psychosomatics, and psychopathology.

Applicants should send curriculum vitae and five references to **Professor Morton Friedman, Chairman, Faculty Search Committee, Department of Psychology, University of California, Los Angeles, California 90024. UCLA is an Equal Opportunity/Affirmative Action Employer.**

PATHOLOGIST/ANATOMIST/CELL BIOLOGIST DEPARTMENT OF PATHOLOGY, UNIVERSITY OF ARKANSAS COLLEGE OF MEDICINE

Ph.D. required. There is one position open to serve as director/coordinator of the tissue processing facilities of the department. This includes electron microscopy, the bone laboratory, routine histology, and special techniques (histochemistry, special stains, and so forth). The successful candidate should have an interest in developing his own ongoing research project, though collaboration with other members of the department is not excluded. Must have the ability to supervise the technology involved and collaborate with the other investigators in the department. Teaching of graduate-level courses will be required. Salary and rank commensurate with experience and training.

Send curriculum vitae and at least three references to:

**Sanford I. Roth, M.D.
Chairman, Department of Pathology
University of Arkansas for Medical Sciences Campus
4301 West Markham Street
Little Rock, Arkansas 72201
*An Equal Opportunity Employer***

PLANT VIROLOGY

Assistant Professor. Half-time teaching: plant virology and virus diseases, plant pathological methods. Half-time organized research on plant viruses and virus diseases. Applicants should possess a Ph.D. degree in plant pathology, virology, or closely related area with specific training or experience in virology. Position available 1 September 1977, or upon availability of selected candidate. Send brief professional biography and personal data sheet, educational transcripts, and names of three references to: **John F. Schafer, Chairman, Department of Plant Pathology, Washington State University, Pullman, Wash. 99164. Equal Opportunity/Affirmative Action Employer.**

Sr. Research Scientist

PhD in Medical Sciences with 2-5 years experience in laboratory diagnostics, preferably in an industrial environment.

The successful candidate will head up new section in research and development for assessment and maintenance of product integrity. Some supervisory experience preferred.

Qualified applicants should send resume and current salary history to: Employment Manager



CARTER-WALLACE, Inc.

Cranbury, New Jersey 08512

An equal opportunity employer/male and female

Director National Resource for Computation in Chemistry

LAWRENCE BERKELEY LABORATORY

Applications and nominations are invited for the position of Director of the National Resource for Computation in Chemistry (NRCC) at the Lawrence Berkeley Laboratory. NRCC is a new organization funded jointly by NSF/ERDA as a national center with outstanding facilities and scientific staff dedicated to the advancement of chemistry and related sciences. A candidate should have a record of distinguished achievement in a scientific field and the ability to provide scientific and administrative leadership. Selection will be made by Policy Board of NRCC and Director of Lawrence Berkeley Laboratory.

Please submit resumes or nominations to:

Dr. Andrew M. Sessler, Director
Lawrence Berkeley Laboratory
University of California
1 Cyclotron Road
Berkeley, California 94720

An equal opportunity/affirmative action employer M/F

POSITION AVAILABLE ENVIRONMENTAL BIOLOGIST

Primary duties are to establish a program of biological assessment and analysis of the local flora and fauna critical to food chains leading to man. The program will assess the impact of company processes, operations, and products which may have adverse effect on human health. The area of expertise will mainly consist of Aquatic Biology, but a working knowledge of Terrestrial Biology necessary. MS with two years' experience is a prerequisite.

Please send resumes to:



Dr. B. L. Cass
GULF SCIENCE &
TECHNOLOGY COMPANY
Post Office Box 2038
Pittsburgh, PA 15230

An Equal Opportunity Employer M/F

Facility & Licensing Project Professionals

The California State Energy Resources Conservation and Development Commission has immediate openings for experienced professionals to manage and conduct analysis regarding the thermal power plant licensing activities of the Commission. Opportunities exist at all professional levels. Annual salaries range from \$15,528 to \$32,844, depending on experience and qualifications.

A limited number of top level positions are available for individuals who have demonstrated project management experience and are knowledgeable of thermal power plant location; design; operation; socioeconomic, public health and safety and environmental impacts; and federal/state regulatory environment.

Positions are available for highly qualified technical experts who have supervised or participated in project teams, possess appropriate academic backgrounds and possess experience in some of the following areas concerning thermal electric power generating facilities and transmission lines:

- Planning the location of facilities.
- Studying the public health, safety, socio-economic, environmental or other impacts of facilities.
- Designing, constructing or operating facilities.
- System planning or reliability studies.
- Facility inspection, monitoring or quality assurance.

Positions are available on a full time and consultant basis, offer excellent state benefits and a long-term opportunity to make professional contributions in a vital area of California's energy system.

Please send your resumes to: **Chris Green, California State Energy Commission, 1111 Howe Avenue, Room 517, FSP LL, Sacramento, CA 95825.**

an equal opportunity employer m/f

POSITIONS OPEN

MEDICAL GENETICIST/INTERNSHIP

University of Michigan, Departments of Internal Medicine and Human Genetics, is seeking an internist/medical geneticist at assistant professor level to join division of medical genetics. Send letter and curriculum vitae to **Thomas Gelehrter, M.D., Director, Division of Medical Genetics, Department of Internal Medicine, University of Michigan, Ann Arbor, Michigan, 48109.** An Equal Opportunity Employer.

MICROBIOLOGIST (Assistant Professor—Senior Research). Ph.D. and 2 years of postdoctoral experience. Research in infectious diseases of fish and assist with supervision of graduate students. Fixed-term appointment starting 1 October 1977. Send curriculum vitae, reprints of research papers, and three letters of recommendation to **J. L. Fryer, Chairman, Department of Microbiology, Oregon State University, Corvallis, Ore. 97331.** OSU is an Affirmative Action/Equal Opportunity Employer.

MICROBIOLOGIST

Assistant Professor. Requirements: Ph.D. and at least 2 years of postdoctorate training. Must be capable of teaching a course in regulation and bacterial growth. Also must be capable of teaching either the medical or general aspects of a two-semester introductory course in microbiology. Please send curriculum vitae, copies of important publications, and names of three references to: **Dr. J. R. Campbell, Head, Department of Microbiology, University of British Columbia, Vancouver, British Columbia, Canada V6T 1W5.**

OCEANOGRAPHY. Position available at assistant or associate professor rank in chemical oceanography to teach at graduate level (M.S. and Ph.D.); Ph.D. required. Emphasis on coastal areas, estuaries, and large harbors. Research interests in marine sedimentary geochemistry, marine organic geochemistry, marine biochemistry, interstitial water chemistry preferred. Position available immediately. Send curriculum vitae and names of three references by 31 October 1977, to **Dr. George T. F. Wong, Institute of Oceanography, Old Dominion University, Norfolk, Va. 23508.** An Affirmative Action/Equal Opportunity Employer.

PHYSIOLOGIST

Ph.D. with strong biochemical background to teach comparative physiology and service courses at undergraduate level and graduate course in speciality. Assistant Professor. Starting date on or before January 1978. Send curriculum vitae to: **Dr. Robert M. Coleman, Department of Biological Sciences, University of Lowell (Commonwealth of Massachusetts), Lowell, Massachusetts 01854.** An Affirmative Action/Equal Opportunity/Title IX University.

POSTDOCTORAL POSITION available to study the biochemistry of serum DNA-binding proteins as tumor markers with collaborative clinical investigation. Strong background in biochemistry and immunology or cell biology desirable. Send curriculum vitae and names of references to: **Dr. S. O. Hoch, Department Microbiology, Scripps Clinic and Research Foundation, 10666 North Torrey Pines Road, La Jolla, California 92037.** Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION

Available for studies on dimorphism in Mucorales, specifically the regulation of fermentative metabolism and its relation to the morphogenetic development. Position available for up to 3 years, starting 15 September 1977. Stipend \$12,000 per year. Send curriculum vitae and names of three references to **Dr. Vincente D. Villa, Biology Department, New Mexico State University, Las Cruces, N.M. 88003.** New Mexico State University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Two years, \$12,000 per year. Genetic and biochemical analyses of the yeast plasma membrane related to the mechanism of multiple drug resistance. Send résumé and arrange for three letters of recommendation to be sent to **Dr. G. H. Rank, Department of Biology, University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N 0W0.**

POSITIONS OPEN

POSTDOCTORAL POSITION

For research on the molecular biology of insect development; hormonal control of mRNA synthesis and in vitro transcription. Experience in nucleic acid hybridization desired. Salary, \$10,000. Send résumé and names of three references to

**Dr. S. Sridhara
Department of Biological Sciences
Northwestern University
Evanston, Ill. 60201**

POSTDOCTORAL POSITION

Available immediately for recent graduate in molecular biology to study contractile elements of the lens. Strong background in protein biochemistry essential. Stipend \$12,000. Send curriculum vitae and names of three references to **Dr. Harry Maisel, Department of Anatomy, Wayne State University School of Medicine, 540 East Canfield, Detroit, Michigan 48201.** An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION

Available immediately for no less than 2 years. Prefer individual with strong background in molecular biology and an orientation toward protein chemistry. Project deals with ribosome structure (see *J. Mol. Biol.* 108, 381, 1976). Send résumé and letters of reference to

**Dr. G. R. Craven
Laboratory of Molecular Biology
University of Wisconsin
Madison, Wisconsin 53706**

POSTDOCTORAL POSITIONS

Two positions available for biochemists with background in protein chemistry. One position involves examination of chemical and biological aspects of vasoactive peptides from serum and the other the isolation and characterization of human histocompatibility and tumor antigens. Send curriculum vitae to:

**c/o Carol Davis
Department of Molecular Immunology
Scripps Clinic and Research Foundation
La Jolla, Calif. 92037.**

An Equal Opportunity/Affirmative Action Employer

Two-year **POSTDOCTORAL POSITION** available immediately for Ph.D. or M.D. to study experimental tumor-host interactions with emphasis on functional relationships and cytokinetics of macrophages and lymphocytes. Experience with in vitro and in vivo models desirable. Salary \$14,000. Please send curriculum vitae and names of three references to: **Dr. A. Volkman, Department of Pathology, School of Medicine, East Carolina University, Greenville, N.C. 27834.** An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITIONS—MICROBIAL TRANSFORMATIONS ANTITUMOR COMPOUNDS. Available 1 September 1977—\$11,000 to \$12,000 per year, renewable. Desire fermentation experience.

Natural Product Chemist—fermentation screening; isolation and structure elucidation of microbial metabolites; chromatographic and spectral expertise required.

Microbial Biochemist—cultivation of microorganisms; culture isolation and manipulation; fermentation optimization and analysis; production of microbial metabolites.

Send résumé and two letters to **Dr. J. P. Rosazza, College of Pharmacy, University of Iowa, Iowa City, Iowa 52242.**

POSTDOCTORAL RESEARCH ASSOCIATE POSITION IN MOLECULAR BIOLOGY

Position is available for a recent Ph.D. in biochemistry to participate in studies investigating the hormonal regulation of the production of specific milk proteins by cultured breast cells. A person familiar with biochemical enzyme purification/characterization is useful but not essential. The annual salary range is \$12,000 to \$14,000. Send curriculum vitae and three letters of reference to:

**Dr. Jerome Kowal
Chief of Staff
VA Hospital
10701 East Boulevard
Cleveland, Ohio 44106**

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately for an immunologist, to study self-tolerance mechanisms; mechanisms of autoimmunity; immunopathology. Applicants should send curriculum vitae and three letters of reference to:

**Shirley Kirchberger, Applications Committee
Department of Immunology and Microbiology
Wayne State University School of Medicine
540 East Canfield
Detroit, Mich. 48201**

An Equal Opportunity Employer

POSTDOCTORAL RESEARCH ASSOCIATES IN CANCER BIOLOGY

Positions are available for recent graduates (Ph.D.) interested in cellular and biochemical actions of anticancer agents, control processes governing hematopoietic stem cell differentiation and proliferation, and macrophage differentiation and function. Reply: **Dr. Fred Valeriote, Section of Cancer Biology, Department of Radiology, 4511 Forest Park Blvd., Suite 411, St. Louis, Missouri 63108.**

TWO POSTDOCTORAL RESEARCH ASSOCIATES IN BIOLOGY

Available September 1977 to work on microbiological research projects concerned with offshore oil development of Alaskan continental shelf areas. Applicants must have Ph.D.; should have marine microbiological experience and be willing to travel for field studies. Position 1 requires expertise in numerical taxonomy to characterize microbial communities in study areas. Position 2 requires expertise in organic chemical analyses, including experience with gas chromatography and mass spectrometry, to analyze, petroleum samples. Salary \$12,000 per year. Send curriculum vitae and two letters of reference to: **Dr. R. Atlas, Department of Biology, University of Louisville, Louisville, Kentucky 40208.** An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL TRAINEESHIPS immediately available for interdisciplinary research in parasitology. Faculty coverage is broad. Areas of interest represented include biochemistry and biophysics, physiology, cell biology, pharmacology, anthropology, immunology, pathology, medicine, entomology, and epidemiology. Send curriculum vitae and letters of reference to: **Curtis L. Patton, Yale University School of Medicine, 310 Cedar Street, New Haven, Conn. 06510.** An Equal Opportunity Employer.

POSTDOCTORAL TRAINING OPPORTUNITIES at the University of Alabama in Birmingham in molecular and cellular aging (Dr. R. Hiramato, Director) and in cardiology (Dr. T. Shiota, Director). Postdoctoral research fellowships (\$10,000 and up) are available from 1 July 1977, under preceptors from the faculty of medicine, dentistry, and basic sciences. Individuals interested should send their curriculum vitae with three references to the appropriate director, **c/o Department of Microbiology, University of Alabama in Birmingham, Birmingham, Alabama 35294.**

The Department of Pathology of Jefferson Medical College wishes to add to its full-time faculty at the rank of **PROFESSOR**, an individual experienced in research who would coordinate the Pathology Training Program for graduate students and assist in the teaching of residents. Medically oriented research is favored, particularly that related to cancer or immunology, or both. Interested individuals may respond to **Dr. G. E. Aponte, Chairman, Department of Pathology, Jefferson Medical College, Philadelphia, Pa. 19107.** Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATES for The Institute for Energy Research, State University of New York at Stony Brook. The institute serves faculty and students with interest in national and international energy policy issues. Ongoing analytical efforts include several related to the energy problems in developing countries (in collaboration with Brookhaven National Laboratory). Persons holding Ph.D.'s with relevant backgrounds in economics, engineering, and related sciences should apply. Joint appointment as faculty in the W. Averell Harriman College for Urban & Policy Sciences is a possibility. Salary dependent upon qualifications. **Robert Nathans, State University of New York at Stony Brook, Stony Brook, New York 11794.** Equal Opportunity/Affirmative Action Employer.

NATIONAL RESEARCH COUNCIL INTERNATIONAL FELLOWS

The National Research Council anticipates appointing two post-doctoral fellows to assist the President of the Scientific Committee on Problems of the Environment (SCOPE) of the International Council of Scientific Unions (ICSU) in developing and accomplishing the continuing SCOPE program.

That program includes activities in the following areas: (1) Biogeochemical cycles, (2) dynamic changes and evolution of ecosystems, (3) environmental aspects of human settlements, (4) eco-toxicology, (5) simulation modeling, (6) environmental monitoring, and (7) communication of environmental information and societal response.

The fellows will work under the direct supervision of the President, Gilbert F. White, and will be based in Boulder, Colorado. Tasks will include investigation of the concepts embodied in a proposed project, identification of persons in the world scientific community who could be called upon to participate, and survey of the interest of the scientific and institutional communities to ensure that a SCOPE project would be useful. Once a project has been completed, tasks remain to assure the effective utilization of its findings. These include identifying key individuals whose attention should be brought to aspects of the report and its implications, interpretation of the report to intergovernmental organizations, and special attempts to interpret the report and its implications for developing countries.

Nonrenewable appointments will be made for approximately 18 months beginning in the fall of 1977. Fluency in reading and writing in English are required. A background in science relevant to the SCOPE program described above, experience in science policy, international travel or work experience, representational skill, demonstrated capability for independent work, and knowledge of languages, especially French, Russian, and Spanish, are desirable. Applications consisting of a complete résumé, three letters of nomination, and a sample of writing in English should arrive at the address below by 16 September 1977.

**International Environmental Programs Committee
The National Academy of Sciences
2101 Constitution Avenue
Washington, D.C. 20418**

Successful applicants will be notified by 14 October 1977. The fellowships will be administered by the University of Colorado. *The University of Colorado is an Equal Opportunity/Affirmative Action Employer.*

— J. ROBERT OPPENHEIMER RESEARCH FELLOWSHIPS —

In addition to our Laboratory's regular postdoctoral program, one or two special postdoctoral research fellowships will become available beginning about June, 1978. Named in honor of the first Director of the Los Alamos Scientific Laboratory, the purpose of these appointments is to foster continuing interactions between the Laboratory and recent recipients of doctoral degrees who show clear and definite promise of becoming outstanding leaders in scientific research.

Appointments will be considered in the physical sciences, the natural sciences, mathematics, and engineering.

The one to three year appointments carry an annual salary of \$22,500.00.

Closing date for the competition is November 1, 1977.

Inquiries should be directed to:

R. Lynn Wilson, Recruiting
Director

Division 77-VV

Los Alamos Scientific Laboratory

P. O. Box 1663

Los Alamos, New Mexico
87545



AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER
WOMEN, MINORITIES, VETERANS AND HANDICAPPED ARE
URGED TO APPLY

DEPUTY ASSISTANT ADMINISTRATORS FOR TESTING AND EVALUATION, FOR CHEMICAL CONTROL, AND FOR PROGRAM INTEGRATION AND INFORMATION

The U.S. Environmental Protection Agency is seeking persons with scientific and/or managerial experience to fill three grade GS-17 Deputy Assistant Administrator positions (as described below) in the Agency's toxic substances program. The persons selected for these positions will be responsible directly to the Assistant Administrator for Toxic Substances and will play key roles in developing and carrying out the Agency's programs related to assessment of the human health and environmental risks of chemicals and to control of the manufacture, processing, distribution, use, and disposal of chemicals.

Testing and Evaluation

The Deputy Assistant Administrator for Testing and Evaluation will be responsible for planning and operating program activities through which the Agency will require testing of chemicals and will evaluate the human health and environmental hazards of chemicals. Specific responsibilities will include development of policies and procedures for requiring testing, development of testing standards and guidelines, and development and implementation of methodology for assessment of human health and environmental hazards based on information on effects and exposures.

Chemical Control

The Deputy Assistant Administrator for Chemical Control will be responsible for planning and operating program activities through which the Agency will seek the application of appropriate control measures to reduce or eliminate unreasonable risks associated with the manufacture, processing, distribution, use, and disposal of chemicals. Specific responsibilities will include the identification and evaluation of regulatory and non-regulatory measures, assessment of pertinent economic, technological, and environmental factors, and development of rules, regulations, and other means to control new and existing chemicals.

Program Integration and Information

The Deputy Assistant Administrator for Program Integration and Information will be responsible for planning and operating program activities through which the Agency will obtain and disseminate information on chemicals. This official will also be responsible for planning and managing efforts to improve coordination of toxic substances-related activities within the Environmental Protection Agency and with other Federal agencies.

Candidates must have one of the following: (1) A bachelor's or higher degree in either the biological, health, or physical sciences and at least three or more years of professional experience including experience in the direction and management of a complex professional program encompassing a variety of functions and in supervising multi-disciplinary scientific personnel; or (2) three or more years of general administrative plus at least three years of significant managerial experience in a type of work or a combination of functions directly related to the position to be filled, or in comparable work or functions. Undergraduate and graduate education may be substituted for a portion of this experience. One year of the required experience for either category must have been at a level of difficulty comparable to the grade GS-16 level in the Federal Service.

Location: Washington, D.C.

Salary range: \$46,423-\$47,500 plus civil service benefits.

Contact: Please send a detailed resume including salary history or a completed Standard Form 171 (Personal Qualifications Statement), which is available in Federal Job Information Centers and Federal Government personnel offices, to reach EPA no later than September 2, 1977 or contact Mrs. Edna Morse (PM-212), 202-755-0310 Personnel Management Division; Environmental Protection Agency; 401 M Street, S. W.; Washington, D. C. 20460.

NOTE: It is anticipated that the Agency's pesticides program eventually will be placed under the purview of the Assistant Administrator for Toxic Substances and that portions of the pesticides program may be functionally integrated with portions of the toxic substances program. Thus, the Deputy Assistant Administrators described above may eventually have responsibilities related not only to toxic substances (under the Toxic Substances Control Act) but also to pesticides.

AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

Mammary gland cell biology. Immediate opening for recent Ph.D. interested in research on microtubules and microfilaments in milk synthesis and secretion. Experience with immunocytochemical localization methods is desirable.

Applicants should send résumé, transcripts, and two letters of recommendation to: **Dr. Robert F. Loizzi, Department of Physiology, University of Illinois College of Medicine, Box 6998, Chicago, Ill. 60680.** An Equal Opportunity/Affirmative Action Employer.

The **SCHOOL OF PUBLIC HEALTH** of the University of Illinois at the Medical Center, Chicago, Illinois, has a number of **RESEARCH AND TEACHING POSITIONS** open. These positions are supported primarily through grants; appointments generally will be for 2 to 5 years. A limited number of appointments, however, will be eligible for tenure consideration. We invite applications with research and teaching competencies in one or a combination of the following areas: analytical methods for environmental/industrial pollutants; environmental engineering; environmental management; environmental/industrial toxicology; health education; industrial hygiene; pollution control technology; sanitary engineering; biostatistics (in public health); cancer epidemiology; chronic disease epidemiology; public health microbiology. Preference will be given to applicants with a Ph.D. or equivalent, and with diversified experience and interest in teaching and research. Rank of appointment and salary depend on qualifications. Applicants should submit a résumé, a statement of research and teaching interests and three references to: **Dr. A. W. Donaldson, Acting Dean, School of Public Health, University of Illinois, P.O. Box 6998, Chicago, Illinois 60680.** An Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE DIVISION OF GENETICS

Research position available to study differentiation of lung cells in culture. Applicants should have Ph.D. and experience in cellular/molecular biology specifically in protein chemistry, cell fractionation, steroid receptor characterization, use of radioisotopes, and tissue culture. Send curriculum vitae, brief summary of experience, and names of references to: **Roger L. Ladda, M.D., Division of Genetics, Department of Pediatrics, The Pennsylvania State University College of Medicine, Hershey, Pennsylvania 17033.** Telephone: 717-534-8412.

RESEARCH FELLOW. Possible position for research in high-resolution astronomical imaging with solid-state area detectors and theoretical studies of planetary ionospheres. Successful applicant will have a Ph.D. and at least 3 years of experience in one or more of the areas of observational astronomy, computer programming, solid-state detectors, and theoretical aeronomy. Send résumé and three letters of recommendation by 15 September 1977 to: **Dr. Bradford A. Smith, Lunar and Planetary Laboratory, University of Arizona, Tucson, Arizona 85721.** An Equal Opportunity/Affirmative Action/Title IX Employer.

RESEARCH ASSOCIATE MEMBRANE STRUCTURE

A postdoctoral position is open now for biophysical-electron microscopic studies of the placement of enzymes over mitochondrial innermembrane. Emphasis is on pattern recognition approaches established here. Experience in handling membrane preparations helpful. Reply, with recommendations, to: **Dr. A. Max Fiskin, Department of Microbiology, Kansas University Medical Center, Rainbow and 39th, Kansas City, Kansas 66103.**

RESEARCH SPECIALIST

Functions as member of research team in studying nature of sodium-dependent transport carriers reconstituted into artificial liposomes.

Requires Ph.D. with experience in the study of structure and function of natural or artificial lipid membranes and strong background in biochemical or biophysical techniques as applied to membranes.

Please send résumé to: **Personnel Department, College of Medicine and Dentistry of New Jersey, Rutgers Medical School, P.O. Box 101, Piscataway, New Jersey 08854.**

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

RESPIRATORY PHYSIOLOGIST

Applications are invited for an **assistant professor** position available 1 July 1978. A doctorate degree and potential for developing and carrying on an independent research program are required. Preference will be given applicants with postdoctoral experience and research expertise in respiratory regulation. Opportunities are available to teach undergraduate, graduate, and medical students. Send application with curriculum vitae and names of three references to: **F. W. Zechman, Ph.D., Professor and Chairman, Department of Physiology and Biophysics, University of Kentucky Medical Center, Lexington, Ky. 40506.**

An Affirmative Action/Equal Opportunity Employer

Wanted: RESEARCH SPECIALIST IN IONOSPHERIC PHYSICS. Salary \$22,000 per annum. Hours: 8 a.m. to 4:30 p.m. at Lexington, Mass. Requirements include advanced academic degree in physics (Ph.D. preferred), expertise in state-of-the-art techniques in systems configurations, space communication, thorough awareness of current literature related to ionospheric scintillations, and extensive publications in this field. Please send complete résumé including transcript and list of publications to: **Professor M. P. Hagan, Physics Research Division, Emmanuel College, 400 The Fenway, Boston, Mass. 02115.** Written correspondence will be sent to all respondents regarding acceptability.

TRANSLATORS/ABSTRACTORS

Applications are invited from qualified individuals interested in confidential free-lance assignments in basic and clinical medical sciences. Major emphasis on German, Japanese, Russian, Chinese, French and Spanish. Reply in confidence with pertinent information as to language(s), subject specialization, and so forth, to: **Box 330, SCIENCE.**

INTERNATIONAL SYMPOSIUM

FIRST INTERNATIONAL SYMPOSIUM ON THE IMMUNOBIOLOGY OF PROTEIN AND PEPTIDES

The First International Symposium on the Immunobiology of Proteins and Peptides will be held in Minneapolis, Minnesota, on 25-28 September 1977.

The symposium will convene leading investigators with an objective to consolidate the research done over the years on protein and peptide antigens of defined structure and to focus on these findings in the context of contemporary immunology. These include the molecular features of protein antigenicity; fundamental studies of the immune response to proteins, hapten-protein conjugates, and synthetic amino acid polymers; the genetic control of some of these systems; and the relationship of lymphocyte-membrane structure to function. The meeting will serve to integrate and correlate the current knowledge of these systems with developing trends in molecular and cellular immunology. Further information may be obtained from: **Prof. M. Z. Atassi, Mayo Medical School, Rochester, Minn. 55901.**

COURSE

SHORT COURSE ON PRACTICE OF LIGHT SCATTERING

10 and 11 October 1977. Institute of Colloid and Surface Science, Clarkson College, Potsdam, New York 13676. Contact **J. Kratochvil** at this address, or 315-268-2353. Tuition fee \$200.

Lectures and discussion will be conducted by Professors **B. Chu** (State University of New York, Stony Brook), **H. Eisenberg** (Weizmann Institute) and **M. Kerker** and **J. Kratochvil** (Clarkson College). Emphasis on application of light scattering techniques to macromolecules and colloids.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP

Applications invited for work in enzymology, androgen mechanisms, and prolactin binding to prostate cancer cell. Send curriculum vitae, bibliography, and names of three references to: **C. M. Veneziale, Department of Molecular Medicine, Mayo Clinic, Rochester, Minnesota 55901.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS (NIMH) available in research training program in psychophysiology. Program stresses basic techniques (with emphasis on both cortical and autonomic measures) as well as applications in developmental, cognitive, and clinical psychology. Send curriculum vitae or requests for further information to: **Michael Coles, Ph.D., Department of Psychology, University of Illinois, Champaign, Illinois 61820.** An Affirmative Action/Equal Opportunity Employer.

Two-year **POSTDOCTORAL FELLOWSHIP** in retinal cell biology available 1 January 1978 at the Jules Stein Eye Institute, University of California at Los Angeles. Eligibility limited to U.S. citizens and permanent residents. The position should attract someone wishing to work on problems dealing with the structure and molecular biology of photoreceptors. Send curriculum vitae and statement of research interest to: **Dr. Dean Bok, Jules Stein Eye Institute, UCLA Center for Health Sciences, Los Angeles, Calif. 90024.** An Equal Opportunity/Affirmative Action Employer.

GRANT ASSISTANCE

\$ FOR NATURAL SCIENTISTS \$
Faculty members and Ph.D. students in AL, AR, FL, GA, KY, LA, MD, MS, NC, SC, TN, TX, VA, and WV can apply for small-grant assistance for travel and expenses to use facilities and special equipment not available on their own campuses. Write **Small Grants Program, Southern Regional Education Board, 130 Sixth Street, NW, Atlanta, Georgia 30313.**

MARKET PLACE

Book Publishing

Manuscripts invited for prompt review and terms of publication. All subjects. Professional editing, design, production and marketing since 1920. Send inquiry or manuscript, or call (215) 642-8303. Ask for free *Authors' Guide* CD.
DORRANCE & COMPANY
35 Cricket Terrace, Ardmore, Pa. 19003

Microprobe THERMOMETERS

We make 14 thermometers, with digital or meter readout. All read in 2 secs, are extremely easy to use. Simply apply probe — read temperature.

Models

BAT-4 BIOLOGICAL

BAT-5 CRYOGENIC

BAT-7 INDUSTRIAL

BAT-8 DIGITAL °C or °F

TH-2 CLINICAL

Unbreakable probes are steel sheathed including World's Smallest Microprobe, 0.01" dia.


BAILEY INSTRUMENTS INC.
Saddle Brook, N.J. 07662 • (201) 845-7252

Circle No. 27 on Readers' Service Card

COMPLETE PO₂ MEASURING SYSTEM

- Microelectrodes with 2-μm tip diameters for intracellular studies — reliable in moving solutions.
- 22-gauge needle electrodes for extracellular PO₂.
- O₂ meter, calibration cell, other accessories.

For more information, write or call



**TRANSIDYNE
GENERAL
CORPORATION**

903 Airport Drive, Ann Arbor, Michigan 48106
(313) 769-1900

Circle No. 158 on Readers' Service Card
SCIENCE, VOL. 197

FIRST AID FOR YOUR LC.

It's about time you gave your LC a little "Tender Loving Care." After all your liquid chromatograph does for you, turning out all those chromatograms day after day, shouldn't you do something nice for it?

Consider changing your column packing and putting in Hamilton's Resins. You'll get better resolution of peaks, you can operate at lower back pressures, have higher peak selectivity, and get better stability.

Hamilton's line of concentrated buffers save preparation time and storage space. You can also eliminate wasted reagents and the growth of mold. Sodium and lithium citrate buffers are available for specific amino acid methodologies and a ready-to-use buffer is available for use in narrow bore columns.

Try our miniature 1X and 2X inert valves. For automatic operation a motorized valve driver and a digital timer let you make buffer or solvent changes at preselected time intervals.

There's a full line of tubing, tube fittings, connectors and adaptors. We'll even provide tube assemblies to your specifications. To help you make leak-tight butt-end connections for our fittings, you can use our new Flanging Tool. And we can fit you out with stainless steel columns, a slurry packer, and column supports.

And don't forget our precision syringes. In particular, the 1800 series designed for LC.

All these aids for your LC are described in our new LC Catalog. For your free copy, write to J.V. Benson, Jr., Hamilton Company, Post Office Box 10030, Reno, Nevada 89510.

HAMILTON

Circle No. 149 on Readers' Service Card





**When you want a
number of objective
viewpoints, you need the
AO[®] MICROSTAR[®] Microscope.**

Up to five persons can share the same microscope and view the same superb image simultaneously with the AO MICROSTAR Multi-View Microscope.

Micro communication has never been better. A projected green arrow can be positioned anywhere in the field of view to pinpoint specific detail for all viewers to see.

Ideal for conferences, consultation and training. Select from a wide range of complete 2, 3, 4 or 5 station multi-viewing microscope models or you can easily convert your own AO Series 10 or 20 MICROSTAR Microscope to multi-viewing with easy-to-add components.

For more information on more effective micro dialog with AO Multi-View Microscopes, contact your AO Dealer or write for brochure. American Optical, Scientific Instrument Division, Buffalo, NY 14215.

AO[®]
American
Optical

Circle No. 115 on Readers' Service Card

