

In addition to obviously relevant chapters by Bos and Heilbron, consultation of the index will reveal three quite different definitions of "physics."

Another problem will confront readers unfamiliar with the works of Michel Foucault, who is cited repeatedly in the first two-thirds of this volume. To understand this French philosopher-historian requires the learning of an esoteric language in which seemingly ordinary words like "context" (or "contextualism") and "discourse" are given special connotations. The uninitiated reader is advised to start with the first pages of Roger's chapter and the final pages of Rousseau's, and then to consult Schaffer's longer discussion (the chapter on "Natural philosophy") of Foucault and other philosophers of science.

Steven Shapin's "Social uses of science," the latest entry into the long and futile debate between so-called externalist and internalist historians of science, presents other problems. Since most of the contributors treat the social dimensions of their topics, and since it is a cliché of modern life that science does have social uses, the reader may well wonder at Shapin's aggressive, polemical defense of his subject. Shapin observes that most internalists have neglected contexts other than the philosophical and the religious and moves from this point to the assertion that ideas do not have a life of their own and that the more fundamental basis of ideas is social (p. 108 and elsewhere). Both assertions need examination. Though Shapin repeatedly calls for empirical research, one gets the impression that research should be directed toward validating what are being stated as obvious truths. How scientific ideas originate and how they are used are distinct and difficult subjects, and Shapin barely touches upon the former. Nonetheless, and while calling for more research, he is able to claim that "accounts of natural reality were constantly generated with a view to legitimating social arrangements" (p. 131). In response to charges that externalists are sometimes social determinists, or sound as if they are, Shapin accuses internalists of the same. Unfortunately for his argument, he interprets statements concerning the influence of Neoplatonic and alchemical literature on Isaac Newton as indicative of an underlying view that Newton was "passively shaped by" those books with which he was acquainted (p. 110). This curious interpretation reduces to nonsense any study of the history of ideas. There is also the question of how one defines

social groups. Social historians have debated this issue for a long time, and some contributors to this volume, apparently unaware of the problem, are blithe in their statements about the ever-rising bourgeoisie. Shapin offers no definitions, but he inadvertently touches upon serious matters of social taxonomy: does one define "class" on the basis of shared ideas, social status, economic condition, or political influence or power? (There are other options, too, such as literacy.) Do advocates of different scientific theories constitute different social groups? Is it significant that anti-Newtonians are to be found in apparently different social groups? These admittedly large and controversial questions are more familiar to social historians than to historians of science who venture into social history. Far from wishing to discourage the pursuit of these topics, I would like to see them better handled, and I wish externalists would pay less attention to sociological models than to social historians like J. H. Hexter and Alfred Cobban.

If this review has tended toward the critical, it is because I wish that a fundamentally excellent volume were still better. What can be said without qualification is that the contents are so rich and varied that any reader will find them rewarding. Above all, no reader will come away from the book with the idea that "trough" could be an adequate description of scientific learning in that best of all possible centuries.

RHODA RAPPAPORT

*Department of History, Vassar College,
Poughkeepsie, New York 12601*

Books Received

- Active Experiments in Space Plasmas.** Proceedings of a symposium, Budapest, June 1980. C. T. Russell and M. J. Rycroft, Eds. Published for the Committee on Space Research by Pergamon, New York, 1981. viii, 468 pp., illus. Paper, \$59. *Advances in Space Research*, vol. 1, no. 2.
- Advances in Clinical Child Psychology.** Vol. 4. Benjamin B. Lahey and Alan E. Kardin, Eds. Plenum, New York, 1981. xvi, 364 pp., illus. \$29.50.
- Bounded Analytic Functions.** John B. Garnett. Academic Press, New York, 1981. xviii, 468 pp., illus. \$59. *Pure and Applied Mathematics*.
- Canadian Woods.** Their Properties and Uses. E. J. Mullins and T. S. McKnight, Eds. University of Toronto Press, Buffalo, ed. 3, 1981. xviii, 390 pp., illus. \$27.50.
- Carbohydrate Metabolism and Its Disorders.** Vol. 3. P. J. Randle, D. F. Steiner, and W. J. Whelan, Eds. Academic Press, New York, 1981. xii, 530 pp., illus. \$83.50.
- Dictionary of Audio, Radio and Video.** R. S. Roberts. Butterworths, Boston, 1981. vi, 248 pp., illus. \$39.95.
- Distance Geometry and Conformational Calculations.** G. M. Crippen. Research Studies Press (Wiley), New York, 1981. vi, 58 pp. Paper, \$26.25.
- Ebla.** An Empire Rediscovered. Paolo Matthiae. Translated from the Italian edition (Torino, 1977) by Christopher Holme. Doubleday, Garden City, N.Y., 1981. 238 pp. + plates. \$14.95.
- Ecology for Environmental Sciences.** Biosphere, Ecosystems and Man. J. M. Anderson. Halsted

(Wiley), New York, 1981. viii, 176 pp., illus. Paper, \$18.50. *Resource and Environmental Sciences Series*.

Functional Analysis. Balmohan Vishnu Limaye. Halsted (Wiley), New York, 1981. xii, 376 pp., illus. \$17.95.

The Future of Antibiotherapy and Antibiotic Research. Papers from a conference, Paris, Feb. 1980. L. Ninet, P. E. Bost, D. H. Bouanchaud, and J. Florent, Eds. Academic Press, New York, 1981. xx, 508 pp., illus. \$60.

The Future of Vocational Education. Gordon I. Swanson, Ed. American Vocational Association, Arlington, Va., 1981. 296 pp. \$16.

Genetic Diseases in Pregnancy. Maternal Effects and Fetal Outcome. Joseph D. Schulman and Joe Leigh Simpson, Eds. Academic Press, New York, 1981. xvi, 494 pp., illus. \$49.

How Midwesterners Cope. The East Urbana Energy Study. Carolyn A. Sprague and Demetri B. Shimkin. University of Illinois Department of Anthropology, Urbana, 1981. vi, 164 pp. Paper, \$4. *Research Report no. 5*.

Human Detection and Diagnosis of System Failures. Proceedings of a symposium, Roskilde, Denmark, Aug. 1980. Jens Rasmussen and William B. Rouse, Eds. Plenum, New York, 1981. x, 716 pp. \$75. *NATO Conference Series III*, vol. 15.

Innovation in Health Policy and Service Delivery. A Cross-National Perspective. Papers from a conference, Berlin, 1978. Christa Altenstetter, Ed. Oelgeschlager, Gunn and Hain, Cambridge, Mass., and Verlag Anton Hain, Königstein/Ts., Germany, 1981. viii, 304 pp., illus. \$27.50. *Research on Service Delivery*, vol. 3. Publication of the Science Center Berlin, vol. 34.

Inorganic Reaction Chemistry. Vol. 2, Reactions of the Elements and Their Compounds. Part B, Osmium to Zirconium. D. T. Burns, A. Townshend, and A. H. Carter. Horwood, Chichester, England, and Halsted (Wiley), New York, 1981. pp. 301-580. \$87.95. *Ellis Horwood Series in Analytical Chemistry*.

The Justice Motive in Social Behavior. Adapting to Times of Scarcity and Change. Melvin J. Lerner and Sally C. Lerner, Eds. Plenum, New York, 1981. xxii, 494 pp. \$32.50. *Critical Issues in Social Justice*.

Killer Bears. Mike Cramond. Outdoor Life Books, New York, and Scribner, New York, 1981. vi, 302 pp. + appendix. \$14.95.

Lactose Digestion. Clinical and Nutritional Implications. Papers from a conference, Baltimore, Dec. 1979. David M. Paige and Theodore M. Bayless, Eds. Johns Hopkins University Press, Baltimore, 1981. xx, 280 pp., illus. \$22.50.

Lecture Notes on Vertebrate Zoology. Ronald Pearson and John N. Ball. Halsted (Wiley), New York, 1981. viii, 180 pp., illus. Paper, \$21.95.

Legionnaires' Disease. Gary L. Lattimer and Richard A. Ormsbee, Dekker, New York, 1981. viii, 250 pp., illus. \$23.50. *Infectious Diseases and Antimicrobial Agents*, 1.

Mysteries of the Past. Lionel Casson, Robert Claiborne, Brian Fagan, and Walter Karp. Joseph J. Thorndike, Jr., Ed. American Heritage, New York, 1981 (trade distributor, Scribner, New York). 320 pp., illus. Paper, \$12.95. Reprint of the 1977 edition.

Neurotransmitter Receptors. Part 2, Biogenic Amines. H. I. Yamamura and S. J. Enna, Eds. Chapman and Hall, London, 1981 (U.S. distributor, Methuen, New York). xii, 274 pp., illus. \$37.50. *Receptors and Recognition*, Series B, vol. 10.

New Directions in Piagetian Theory and Practice. Papers from two symposia. Irving E. Sigel, David M. Brodzinsky, and Roberta M. Golinkoff, Eds. Erlbaum, Hillsdale, N.J., 1981. xvi, 378 pp., illus. \$24.95.

Purinerergic Receptors. G. Burnstock, Ed. Chapman and Hall, London, 1981 (U.S. distributor, Methuen, New York). xii, 366 pp. \$49.95. *Receptors and Recognition*, Series B, vol. 12.

Quantum Physics. A Functional Integral Point of View. James Glimm and Arthur Jaffe. Springer-Verlag, New York, 1981. xx, 418 pp. Paper, \$16.80.

Recent Developments in Condensed Matter Physics. Vol. 1, Invited Papers. Papers from a conference, Antwerp, Apr. 1980. J. T. Devreese, L. F. Lemmens, V. E. Van Doran, and J. Van Royen, Eds. Plenum, New York, 1981. xviii, 856 pp., illus. \$85.

The Red Cell. Fifth Ann Arbor Conference. Sept. 1980. George J. Brewer, Ed. Liss, New York, 1981. xxxiv, 806 pp., illus. \$78. *Progress in Clinical and Biological Research*, vol. 55.

Reinforced Concrete Detailing. John A. Barker. Oxford University Press, New York, ed. 2, 1981. xx, 304 pp., illus. \$98.

Volcanoes of the World. A Regional Directory, Gazetteer, and Chronology of Volcanism During the Last 10,000 Years. Tom Simkin and five others. Hutchinson Ross, Stroudsburg, Pa., 1981 (distributor, Academic Press, New York). x, 234 pp., illus. \$19.75.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising closing for a particular Friday issue is Wednesday, 3 1/2 weeks before. 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.

POSITIONS WANTED: 40¢ per word, plus \$4 for use of box number, per insertion. \$10 minimum, per insertion. Prepayment required. This rate is available only to individuals seeking jobs.

DISPLAY (POSITIONS OPEN, COURSES, FELLOWSHIPS, MARKETPLACE, and so forth): \$9 per millimeter; \$225 minimum, per insertion (minimum charge covers 25 millimeters on a single column; 25 millimeters equals 10 lines of 50 spaces per line). No charge for use of box number. No agency commission for ads less than 103 millimeters (4 inches). No cash discount. Prepayment required for all foreign ads. Purchase orders and billing information required for all other advertising.

Send copy for all **Positions Wanted** ads and **Display** ads less than 1/6 page in size (125 millimeters) to:

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

Send copy for **Display** ads 1/6 page and larger to:

Scherago Associates, Inc.
1515 Broadway
New York, N.Y. 10036
Telephone: 212-730-1050

Blind ad replies should be addressed as follows:

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

POSITIONS WANTED

Analytical Chemist (D.Sc.), Chemical Engineer (M.Ch.E.). More than 50 publications (including 23 patents); long experience in sensors/analyzers R & D and in organizing and directing laboratories. Excellent teaching and industrial references. Desires senior faculty/research, industrial, or governmental position. Box 7, SCIENCE. X

Recent college graduate, May 1981, **B.A. Biology.** Prefers research but is willing to be trained for a position. Box 6, SCIENCE. X

Clinical Immunologist, Ph.D., experienced in cellular immunology, histocompatibility, serum proteins, serology; research interest in autoimmune disease. Seeks clinical laboratory position, teaching, research at university or teaching hospital. Box 4, SCIENCE. 1/1, 15, 29; 2/12, 26

Entomologist/Pesticides Chemist. M.S. entomology (1980); B.S. pesticides chemistry (1973). Seeks research/industrial position in agriculture/entomology; 3 years of supervising in plant quarantine in foreign country; 1 1/2 years of bioassay of various insecticides; 1 year of experience in purification of granulosis virus. Box 316, SCIENCE. X

Immunologist. Ph.D. 1970. University research experience in cellular immunity in infectious and autoimmune disease, lymphocyte mediated target cell killing, and lymphokines. Excellent publications and references. Seeking research position in academia or industry. Box 313, SCIENCE. 1/1, 8

Neuroscientist. Ph.D. 1978. Three years of postdoctoral experience including teaching. Publications. Research interests include neuroanatomy, neuroendocrinology, reproductive behavior. Seeking medical/industrial/academic research position. Box 312, SCIENCE. X

Tissue Culturist/Virologist. Ph.D. Research background in insect/mammalian cell cultures, physiological techniques, arbovirus/baculovirus replication, diagnosis of viral diseases; teaching at university. Seeking research position in industry or academic/research institution. Box 314, SCIENCE. 1/1, 15

POSITIONS WANTED

Physician. M.D./M.P.H. Experience in academia and government (NIOSH). Seeking position in preventive medicine, occupational health, or epidemiology. Box 305, SCIENCE. X

Zoologist/Parasitologist. Ph.D. Seeking academic or laboratory position. Experience in systematics, ecology, pathology, and histochemistry. Box 5, SCIENCE. X

POSITIONS OPEN

ALLERGY RESEARCH—Positions are now open for immunochemists (Ph.D.) in the following areas: allergen specific IgE, basophil histamine release, allergen quality control and standardization. Candidates should have a strong background in at least one of these areas. Send curriculum vitae to: **Irene B. Haydik M.D., IMMUTRON INC., 1531 Monrovia Avenue, Newport Beach, Calif. 92663.**

ANATOMY AND PHYSIOLOGY

Tenure-track position at assistant/associate professor level for September 1982. A Ph.D. in an area of **VERTEBRATE BIOLOGY** and a strong commitment to teaching required. Primary responsibilities include teaching and coordinating anatomy and physiology for nursing students, teaching a course in pathophysiology for registered nurses, and liaison duties with off-campus nursing programs. Research encouraged but primary commitment is to teaching. Send curriculum vitae, transcripts, reprints, and names of five references by 5 March 1982 to: **Dr. Melvin Beck, Chairman, Search Committee, Department of Biology, Memphis State University, Memphis, Tenn. 38152. Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR. Molecular biologist experienced in recombinant DNA techniques and their application to study eukaryotic differentiation. Department of Biochemistry and Comprehensive Cancer Center, University of Southern California (USC). *An Equal Opportunity Employer.* Send curriculum vitae, bibliography, four references, and a statement of present and future research interests to: **Dr. Charles Heidelberger, USC Cancer Center, 1721 Griffin Avenue, Los Angeles, Calif. 90031.**

ASSISTANT PROFESSOR, BIOCHEMISTRY—MOLECULAR BIOLOGY. tenure-track, 12-month position. Candidates should show outstanding potential for research and be interested in team teaching biochemistry and offering a graduate course in proteins and enzymes. Areas of research interest may include (but are not limited to) membrane biochemistry, enzyme regulation, or regulation of gene expression. Postdoctoral experience is desirable. This position will be approximately 75 percent with an appointment in the Experiment Station. Please send curriculum vitae, a short statement of research interests, and three letters of reference by 15 February 1982 to: **Dr. Wayne E. Magee, Department Head of Bacteriology and Biochemistry, College of Agriculture, University of Idaho, Moscow, Idaho 83843. Affirmative Action/Equal Opportunity Employer.**

The **DEPARTMENT OF BIOLOGY** of Winthrop College invites applications for anticipated tenure-track position, assistant professor rank. Duties include teaching human anatomy and physiology and other subjects in vertebrate/human biology. Applicants should have Ph.D. in a biological area, and show evidence of teaching competence and commitment to scholarly accomplishment. Contact: **Dr. Luckett Davis, Chairman, Biology Department, Winthrop College, Rock Hill, S.C. 29733. Affirmative Action/Equal Opportunity Employer.**

ECOLOGICAL TOXICOLOGIST

Tenure-track position at assistant/associate professor level for September 1982. A Ph.D. with emphasis on the mechanisms and assessment of toxicity in aquatic or terrestrial environments along with demonstrated quantitative and statistical abilities required. Primary responsibilities include development of an undergraduate concentration in toxicology, teaching courses in toxicology, and development of an active research program. Send curriculum vitae, transcripts, reprints, statement of research interest, and names of five references by 5 March 1982 to: **Dr. Melvin Beck, Chairman, Search Committee, Department of Biology, Memphis State University, Memphis, Tenn. 38152. Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT PROFESSORSHIPS. The Division of Biological Sciences, The University of Michigan, announces two tenure-track positions commencing September 1982: (i) **Arthur F. Thurnau Assistant Professorship in Molecular Genetics**, emphasizing research in the structure, modification, transfer, rearrangement, or function of genes, preferably in relation to higher plants, but superior applicants working with other organisms will also be considered; and (ii) **Assistant Professorship in Experimental Plant Biology**, emphasizing research in plant metabolism through application of physical, biochemical, and/or genetic techniques. Specializations in photosynthesis, nitrogen metabolism, and organelle biogenesis/function are of particular interest for this second position. We prefer to fill it at the assistant professor level, but do not exclude the possibility of an associate professorship where the successful candidate's experience and accomplishments in experimental plant biology warrant. Postdoctoral experience is desirable for both positions. The primary duties for both positions involve development of a productive research program and participation in graduate and undergraduate instruction. Applicants should arrange for submission of curriculum vitae, reprints of selected publications, statement of future research plans, and three letters of recommendation to: (i) **Chairman, Thurnau Professorship Committee**, or (ii) **Chairman, Experimental Plant Biology Search, Division of Biological Sciences, The University of Michigan, Ann Arbor, Mich. 48109.** Application deadline is 15 February 1982. *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.*

BIOCHEMISTRY DEPARTMENT UNIVERSITY OF WISCONSIN-MADISON

Applications are invited for a faculty position in the Department of Biochemistry and School of Veterinary Medicine, University of Wisconsin-Madison. The rank of the appointment is expected to be an **assistant professor**, but highly qualified candidates at all levels will be considered. The successful applicant will be expected to develop and participate in the teaching of a biochemistry course to students in the School of Veterinary Medicine. Preferences will be given to candidates who have the potential to develop a substantial independent research program in physiological aspects of biochemistry. Salary will be on a 12-month basis, at a level that is commensurate with qualifications and experience, and compatible with the salary structure of the University of Wisconsin system. *Women and minority candidates are especially encouraged to apply.* Send detailed curriculum vitae, including a statement of research accomplishments and interests, and references to: **H. F. DeLuca, Chairman, Department of Biochemistry, University of Wisconsin, Madison, Wis. 53706**, before 1 February 1982. *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

DEPARTMENT OF HEALTH STUDIES, University of Waterloo, has a tenure-track position (pending funding) at the **assistant professor** level. Applicants should have Ph.D. training and research interests in experimental, clinical, or community nutrition, and/or gerontology. Postdoctoral experience is desirable, but not required. The candidate's responsibilities include undergraduate and graduate teaching and research. The Department of Health Studies is concerned with the biological and behavioral aspects of disease, health care, and health promotion. Ability to interact with a multidisciplinary behavioral and biomedical faculty is essential. Canadian Citizens and Landed Immigrants will be given preference. Send curriculum vitae, reprints, and three letters of reference to: **J. Allan Best, Ph.D., Chairman, Department of Health Studies, University of Waterloo, Waterloo, Ontario, Canada N8L 3G1.**

ASSISTANT PROFESSOR. Department of Neurological Sciences, Rush Medical College. The Department of Neurological Sciences has a full-time position for an academically oriented neurologist, Board-qualified in EEG, and preferably with some experience in evoked potentials. Duties will include participation in an extensive epilepsy surgery program with use of long-term, video-tape monitoring, implanted electrodes, special diagnostic procedures, and electrocorticography. An interest in epilepsy and/or sleep disorders is desirable. Research space as well as designated research time is available according to the interests of the candidate. Contact: **Dr. F. Morrell, Director, Neurophysiology Laboratories, Rush Medical College, 1753 West Congress Parkway, Chicago, Ill. 60612. Rush Medical College is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT PROFESSORS OF BOTANY UNIVERSITY OF MARYLAND

Applications are invited for two teaching and research tenure-track positions: (i) a 10-month appointment for a physiological ecologist or population biologist with a Ph.D. and strong academic and research background in plant ecology; and (ii) a 12-month appointment for a plant cell biologist with a Ph.D. and strong academic and research background in cytology and electron microscopy. Appointments will be at the assistant professor level with salary commensurate with experience. Completed applications should include current curriculum vitae, a statement of research and teaching interests, transcripts of all university work, available reprints, and four letters of recommendation. Applications and nominations close 28 February 1982 or when suitable candidates are selected, whichever is later. Send to: (i) **Dr. James L. Reveal**, or (ii) **Dr. Hugh D. Sisler**, Department of Botany, University of Maryland, College Park, Md. 20742.

Equal Opportunity/Affirmative Action Employer

The Department of Poultry Science at Oregon State University invites applications for a position at the ASSISTANT PROFESSOR level in the area of turkey research involving physiology and management of poultry. Both research and teaching responsibilities will be involved. The Ph.D. degree is required. Salary is commensurate with experience and qualifications. The position will be available 1 July 1982, but no later than 1 September 1982. Application deadline: 1 May 1982. *Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.* For information about the department and the requirements for the position, write:

Dr. G. H. Arscott, Head
Department of Poultry Science
Oregon State University
Corvallis, Oregon 97331-3402

ASSISTANT RADIATION BIOLOGIST

A tenure-track appointment beginning July 1982. By 1 February 1982 send curriculum vitae, list or copies of publications, research interests, salary requirements, and names and addresses of three individuals who may be contacted for reference to: **Dr. Bruce F. Kimler**, Radiation Biology Laboratory, Department of Radiation Therapy, University of Kansas Medical Center, Kansas City, Kans. 66103. *An Equal Opportunity/Affirmative Action Employer.*

BIOCHEMICAL ENDOCRINOLOGIST position in the Department of Cellular and Molecular Biology at the Southwest Foundation for Research and Education which is affiliated with the University of Texas Health Science Center at San Antonio. The individual sought will be expected to collaborate in established programs examining hormonal regulation of target tissue function during aging and in neoplasia and to develop an independent complementary research program. Applicants with a Ph.D. degree and experience in studies of steroid and/or polypeptide hormone action in cell culture and in receptor quantitation are particularly encouraged. The Department of Cellular and Molecular Biology is directed by Dr. Sydney A. Shain, maintains a large colony of inbred rats for studies in aging, and has established programs of in vivo and in vitro studies related to prostatic cancer. The research environment provides an excellent opportunity for an aggressive, creative scientist. Send résumé, a statement of research interests, and names of three references to: **Personnel Manager, Southwest Foundation for Research and Education, P.O. Box 28147, San Antonio, Texas 78284.**

We are an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL SCIENTIST position available for participation in studies of hormonal regulation of prostate cancer cell function. We are seeking an individual trained in molecular biology/cell biology with predoctoral experience in maintenance and growth of cells in culture. The position is in the Department of Cellular and Molecular Biology at the Southwest Foundation for Research and Education. The department has established programs of in vivo and in vitro studies related to prostatic cancer. Send résumé, statement of research interests, and names of three references to: **Personnel Manager, Southwest Foundation for Research and Education, P.O. Box 28147, San Antonio, Texas 78284.**

We are an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSOCIATE CHIEF OF STAFF FOR RESEARCH AND DEVELOPMENT applications are invited at the Veterans Administration Medical Center, Kansas City, Missouri.

Candidates should be established M.D. research investigators who have a record of meritorious research, have been highly successful in competing for research funding, and are actively engaged in a substantial ongoing research program. Candidates to head this \$3-million program with 150 employees should have prior administrative experience and will be expected to provide dynamic leadership in the continuing development of research programs.

Joint appointments will be given at the Veterans Administration Medical Center and the appropriate department at the University of Kansas College of Health Sciences and Hospital.

Respond with curriculum vitae and three references to: **H. Daniel Lewis, M.D., Chairman, Search Committee, Veterans Administration Medical Center, 4801 Linwood Boulevard, Kansas City, Mo. 64128.**

An Equal Opportunity Employer

ASSOCIATE OR FULL PROFESSOR IN INTERNATIONAL AGRICULTURAL DEVELOPMENT; tenured 11-month position effective 1 July 1982. Duties and responsibilities include teaching and advising graduate and undergraduate students in international agricultural development and interacting with a multidisciplinary faculty in program, research, and grant development. Develop a research program on problems in rural, community, and agricultural development. Teach core courses in new undergraduate and graduate curricula. Qualifications required: doctoral degree in the social sciences and proven excellence in teaching and research. Recent work in international agricultural development desired. Applicants submit statement of qualifications and research interests, résumé, list of publications, and names and addresses of at least three references to: **Chair, Search Committee, Applied Behavioral Sciences, University of California, Davis, Calif. 95616.** Final filing date: 1 February 1982.

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

BIOLOGICAL PSYCHOLOGIST. Applications are invited for a position at the assistant professor level in the Department of Psychology beginning in August 1982. Appointment will be made on the basis of strong research commitment to investigate the biochemical bases of behavior. For this position, candidates are expected to use biochemical methods in their research and to be able to teach rigorous courses in this area. Salary is \$16,000 or higher, commensurate with experience. Applications, including a statement describing proposed research activities and objectives, curriculum vitae, and three to five letters of recommendation should be sent to: **Dr. Herbert P. Alpern, Department of Psychology, University of Colorado, Boulder, Colorado 80309.** *The University of Colorado is an Equal Opportunity/Affirmative Action Institution.* Closing date for receipt of applications is 15 February 1982.

BIOMEDICAL ENGINEERING RESEARCH FELLOW position available immediately. Specializing in the cardiovascular system and in cardiac assist devices. Post-Ph.D. candidates should have training in engineering, mathematics, and computers. Fluid mechanics theory desirable. Highly competitive salary. Send curriculum vitae and names and telephone numbers of three references to: **Dr. Dov Jaron, Director, Biomedical Engineering and Science Institute, Drexel University, Philadelphia, Pa. 19104.** *Equal Opportunity/Affirmative Action Employer.*

CHAIRMANSHIP DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER

Candidates for the chairmanship of the Department of Pharmacology and Toxicology are being sought. Qualifications include an established reputation in research and teaching and the ability to direct a department with an active graduate program and teaching responsibilities for medical, dental, and nursing students. Applicants should submit curriculum vitae, list of publications, description of research plans, and names of three references by 1 March 1982 to: **Dr. Dennis J. O'Callaghan, Chairman, Search Committee, Department of Microbiology, University of Mississippi Medical Center, 2500 North State Street, Jackson, Miss. 39216.** *University of Mississippi Medical Center is an Equal Opportunity/Affirmative Action Employer, M/F/V/H.*

POSITIONS OPEN

CHAIRPERSON Department of Physical Medicine and Rehabilitation University of Pennsylvania, School of Medicine

Application is invited from highly qualified individuals to head the Department of Physical Medicine and Rehabilitation of the University of Pennsylvania School of Medicine.

Reply to: **Physical Medicine and Rehabilitation Search Committee, Dean's Office, School of Medicine, University of Pennsylvania, Philadelphia, Pa. 19104.**

An Equal Opportunity/Affirmative Action Employer

CHAIR, DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE. University of Wisconsin School of Medicine-Madison is searching for a new chairperson for the Department of Pathology and Laboratory Medicine. We seek a person who is able to give professional and administrative leadership of the highest quality to a distinguished department in programs of teaching, research, and service. Reply with curriculum vitae to: **Dr. Donald Harkness, Chairman, Pathology Search Committee, Department of Medicine, University of Wisconsin School of Medicine, 600 Highland Avenue, Madison, Wisconsin 53792,** not later than 15 March 1982. *The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer.*

University of Michigan Medical School, Department of Pathology, seeks a **COORDINATOR OF CELL ANALYSIS LABORATORY** at the rank of assistant professor. The position requires an individual with a professional degree and experience in flow cytometry and the application of computer technology in this area. The individual will be responsible for research and clinical application of flow cytometry in the Department of Pathology. Salary will be commensurate with rank and experience. Send curriculum vitae and a listing of reference sources to: **Peter A. Ward, M.D., Professor and Chairman, Department of Pathology, Box 045, 1335 East Catherine, M5240 Medical Science I Building, Ann Arbor, Michigan 48109.** *A nondiscriminatory, Affirmative Action Employer. Code 66HO.*

University of Michigan Medical School, Department of Ophthalmology, has a full-time faculty position available at the **INSTRUCTOR, ASSISTANT OR ASSOCIATE PROFESSOR** level for direction of major teaching affiliate program at county hospital. Responsibility for resident and student teaching. Contact: **Paul R. Lichter, M.D., Department of Ophthalmology, University Hospital, Parkview 004, Ann Arbor, Michigan 48109.** *A nondiscriminatory, Affirmative Action Employer. Code 27HO.*

University of Michigan Medical School, Department of Ophthalmology, has three full-time faculty positions available for **OPHTHALMOLOGISTS** at the instructor, assistant, or associate professor level. Training in ophthalmology. Opportunity for clinical and laboratory research, resident and student teaching, and clinical practice. Contact: **Paul R. Lichter, M.D., Department of Ophthalmology, University Hospital, Parkview 004, Ann Arbor, Michigan 48109.** *A nondiscriminatory, Affirmative Action Employer. Codes 37, 39, 40.*

University of Michigan Medical School, Department of Ophthalmology, has a full-time faculty position available for a **PEDIATRIC OPHTHALMOLOGIST** at the assistant or associate professor level. Training in ophthalmology and fellowship in pediatric ophthalmology required. Opportunity for clinical and laboratory research, resident and student teaching, and clinical practice. Contact: **Paul R. Lichter, M.D., Department of Ophthalmology, University Hospital, Parkview 004, Ann Arbor, Michigan 48109.** *A nondiscriminatory, Affirmative Action Employer. Code 19FO.*

University of Michigan Medical School, Department of Ophthalmology, has a full-time faculty position available for a **RETINA SPECIALIST** at the assistant or associate professor level. Training in ophthalmology and fellowship in retina required. Opportunity for clinical and laboratory research, resident and student teaching, and clinical practice. Interest on ocular oncology, inherited retinal diseases, retinal electrophysiology, and ultrasound desirable. Contact: **Paul R. Lichter, M.D., Department of Ophthalmology, University Hospital, Parkview 004, Ann Arbor, Michigan 48109.** *A nondiscriminatory, Affirmative Action Employer. Code 17FO.*

POSITIONS OPEN

BOTANY, CELL BIOLOGY/PLANT PHYSIOLOGY. Ph.D. required. Assistant professor (target level), tenure-track. Available August 1982. Teaching will include plant physiology and general biology. A sustained program of research is required. Send résumé, three references, research interests, reprints, and official transcripts to: **Chairperson, Department of Biology, Southeast Missouri State University, Cape Girardeau, Missouri 63701**, by 15 February 1982. *An Equal Opportunity/Affirmative Action Employer, M/F.*

CELLULAR PHYSIOLOGIST urgently needed. Teaching and research experience emphasized. For participation in current work on cell culture of transformed cells. Please apply to: **Chairman, Physiology Department, Ponce School of Medicine, P.O. Box 7004, Ponce, P.R. 00732.**

CHAIRPERSON DEPARTMENT OF NEUROLOGY UNIVERSITY OF PENNSYLVANIA SCHOOL OF MEDICINE

Applicants are invited from highly qualified individuals for the position of chairperson, Department of Neurology, University of Pennsylvania School of Medicine.

Reply to: **Neurology Search Committee, Dean's Office, School of Medicine, University of Pennsylvania, Philadelphia, Pa. 19104.**

An Equal Opportunity/Affirmative Action Employer

DEAN, College of Allied Health. Qualifications: earned doctorate, record of scholarly achievement, college-level administrative experience. Send curriculum vitae, names of at least five references, and cover letter highlighting qualifications by 15 February 1982 to: **Walter L. Cullinan, Ph.D., Chair, Dean's Search Committee, JKSH, University of Oklahoma Health Services Center, P.O. Box 26901, Oklahoma City, Okla. 73190.** *An Equal Opportunity/Affirmative Action Employer.*

DEAN, COLLEGE OF ENGINEERING AND APPLIED SCIENCE THE UNIVERSITY OF WISCONSIN- MILWAUKEE

ENGINEERING AND APPLIED SCIENCE—Dean of College of Engineering and Applied Science, The University of Wisconsin-Milwaukee. Responsible for administrative leadership, research, industrial liaison, and continuing education. Five departments: Civil, Industrial/Systems, Materials, Mechanical, and Electrical/Computer Science, offering programs for bachelor through doctoral degrees. Candidates should have doctoral degree in engineering or an applied science or equivalent, and qualifications for tenured appointment in one of the departments. Position available summer 1982. Nominations and applications (including curriculum vitae and names of at least three references) by 1 March 1982 to: **Dr. Robert C. Eidt, Chairperson, Search and Screen Committee, Department of Geography, The University of Wisconsin-Milwaukee, Milwaukee, Wis. 53201.** *Equal Opportunity/Affirmative Action Employer.*

DIVISION CHIEF FOR CLINICAL SERVICES Department of Radiation Therapy The University of Texas Medical Branch at Galveston

The Department of Radiation Therapy at The University of Texas Medical Branch at Galveston is seeking a radiation therapist, at the associate professor level, to assume the position of division chief of the Division of Clinical Services. The candidate should be at least 3 years out of residency, be Board-certified, and demonstrate ability for clinical and/or nonclinical research. This person will be responsible for the expansion and development of clinical services, the Residency Training Program (approved), and clinical research activities. Please send curriculum vitae to:

**James Belli, M.D.,
Professor of Radiation Therapy
Joint Center for Radiation Therapy
Harvard Medical School
44 Binney Street
Boston, Mass. 02115**

Application deadline is 30 January 1982.

The University of Texas Medical Branch is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

DEVELOPMENTAL BIOLOGIST. Tenure-track assistant professor, starting August 1982. Ph.D. required; postdoctoral research experience desirable. Appointee will be expected to contribute to the undergraduate and graduate teaching programs and to establish a strong research program. Applicants should send curriculum vitae, a statement of research interest and needs, and the names of three persons who may be contacted for references by 29 January 1982 to: **Dr. John T. Barber, Biology Department, Tulane University, New Orleans, La. 70118.** *Tulane University is an Equal Opportunity/Affirmative Action Employer.*

DIRECTOR OF CONTRACT AND GRANT DEVELOPMENT—AUBURN UNIVERSITY. Applicants should have knowledge of research administration at a major university and experience in dealing with public and private funding sources. Job responsibilities include working with faculty to determine their research interests, informing faculty of research opportunities, and seeking extramural funding for the university's research programs from state, federal, and private sources. Preference will be given to an individual having an earned doctorate in a science/engineering area. Applications of qualified persons are invited and should be submitted in writing prior to 15 February 1982 to: **Dr. Fred J. Molz, Chairman, Search Committee, Engineering Experiment Station, Auburn University, Auburn, Ala. 36849.** Include a complete résumé along with the names and addresses of three references. *Auburn University is an Equal Opportunity Employer.*

DIRECTOR/MOLECULAR BIOLOGY

ROSSELL PARK MEMORIAL INSTITUTE, a comprehensive cancer research center, requires a director of the Department of Molecular Biology. Candidates should be able to further develop the department and to interact with, and provide scientific leadership for, the present members of the department whose expertise is in the areas of regulation and development in mammalian systems using a molecular biological and genetic approach. Qualifications should include an earned doctorate with significant accomplishments in the area of molecular biology. Applicants should submit a formal letter of application, complete curriculum vitae, and the names of three references to: **Dr. Darrell Doyle, Department of Cell and Tumor Biology, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, New York 14263.** *An Affirmative Action/Equal Opportunity Employer.*

DIRECTOR, INSTITUTE FOR SOCIAL SCIENCE RESEARCH University of California, Los Angeles (UCLA)

Applications and nominations are invited for the position of director, Institute for Social Science Research (ISSR) at UCLA, effective 1 July 1982. The institute supports faculty research in a broad range of disciplines, and fosters interdisciplinary research training and experience. A substantial technical staff and budget (including extramural funds) are assigned to the institute. Candidates must qualify for a tenure appointment on the UCLA faculty.

Please send curriculum vitae and references by 15 March 1982 to: **ISSR Search Committee, Office of the Chancellor, University of California, Los Angeles, Calif. 90024.** *UCLA is an Affirmative Action/Equal Opportunity Employer.*

DIRECTOR MOLECULAR BIOLOGY INSTITUTE University of California, Los Angeles (UCLA)

Applications and nominations are invited for the position of director, Molecular Biology Institute, UCLA. The institute is an interdepartmental research unit with some 50 academic members and associates housed either within the building or in affiliated departments. Potential candidates should have a distinguished research record, demonstrated or potential administrative skill, and a commitment to providing aggressive leadership for continued scientific growth of the institute. The director will also assume an active senior professorship within an appropriate department in the College of Letters and Science or the School of Medicine.

Submit curriculum vitae and inquiries to: **Jack G. Stevens, Chairman, Search Committee, Molecular Biology Institute Director, Department of Microbiology and Immunology, UCLA School of Medicine, Los Angeles, California 90024.** Closing date: 1 March 1982. *UCLA is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

DEVELOPMENTAL BIOLOGY— DEPARTMENT CHAIR

Department of Biology, College of St. Thomas, St. Paul, Minnesota. The position is tenure-track. Rank and salary are dependent upon qualifications. Responsibilities include developing a course in developmental biology and participation in one freshman level biology course. As department chair, coordinate and direct a six-member department. Requirements: Ph.D. and a commitment to quality teaching in a Catholic liberal arts college. Send curriculum vitae and three letters of reference to: **Robert D. Bland, Department of Biology, College of St. Thomas, St. Paul, Minn. 55105.** Deadline: 1 March 1982. *St. Thomas is an Affirmative Action/Equal Opportunity Employer.*

DIRECTOR, ANIMAL CARE DEPARTMENT Oregon Health Sciences University

The Oregon Health Sciences University is recruiting a Director of Animal Care for 1 July 1982. We are AALAC-accredited and provide animal care services for research and teaching, primarily for the School of Medicine. Persons with a D.M.V. or an equivalent, with at least 3 years of experience in animal facility management, may apply. Certification or eligibility for certification by the American College of Laboratory Animal Medicine is desirable. By 15 March 1982, send résumé and the names of three persons to be used as references to:

**Dr. John A. Resko
Department of Physiology
Oregon Health Sciences University
3181 Southwest Sam Jackson Park Road
Portland, Oregon 97201**

The Oregon Health Sciences University is an Equal Opportunity Employer.

FACULTY POSITION IN TOXICOLOGY

The Department of Community and Environmental Medicine invites applications for the position of **PROFESSOR** in the area of toxicology. Applications are sought from individuals with a Ph.D. degree in toxicology or related field or with an M.D. with several years of experience in conducting basic research and in teaching in the field of toxicology. The position requires demonstrated ability to secure research funds through contracts and grants in toxicology, to publish original research papers in refereed journals, and to teach toxicology at the graduate level. This faculty position is expected to complement the toxicology teaching and research faculty in the Department of Community and Environmental Medicine and the University of California Southern Occupational Health Center and the successful applicant will assist in further faculty recruitment in toxicology. The current Program in Environmental Toxicology at University of California, Irvine, concentrates in the areas of inhalation and pulmonary toxicology, biochemical toxicology, and chemical carcinogenesis. Candidates with experience in these fields and in biochemical mechanisms in neurotoxicology and reproduction toxicology would be especially attractive.

Candidates should send curriculum vitae and names of five referees to:

**T. Timothy Crocker, M.D., Chair
Department of Community and
Environmental Medicine
Ronald C. Shank, Ph.D.
Chair, Search Committee
College of Medicine
University of California, Irvine
Irvine, California 92717**

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

FACULTY POSITION—A tenure-track, 12-month assistant professorship for a person with background and research interest in pathogenic bacteria. Ph.D., M.D. or equivalent degree and at least 2 years of postdoctoral experience. Preference given to persons with genetic or molecular approaches to mechanisms of pathogenesis. Must be capable of conducting an independent research program and have an interest in teaching medical and graduate students. Position will be available 1 July 1982. Applicants should submit a letter outlining current and future research interests, curriculum vitae, and bibliography and arrange for three letters of reference to be sent to: **Dr. Duard Walker, Department of Medical Microbiology, UNIVERSITY OF WISCONSIN MEDICAL SCHOOL, 1300 University Avenue, Madison, Wisconsin 53706.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

TWO FACULTY POSITIONS—BOTANY. The Department of Biology of Oberlin College seeks to fill one and one-half sabbatical replacement positions during the academic year 1982-1983. Teaching responsibilities to be covered by the two positions together include the following: introductory genetics (one-third of a team-taught course), introductory botany (one-half of a team-taught course), and one course each in plant structure and function, plant diversity, and vascular plant systematics. *Candidates should clearly indicate whether they are interested in the half-time (full-time for the fall semester, or half-time for the year) or only the full-time position.* Candidates with the Ph.D. degree and some postdoctoral experience are preferred, but we will also consider those in the last stages of completion of the Ph.D. Academic rank and salary are dependent upon background and experience. Openings are normally filled at the assistant professor level.

Applications should include curriculum vitae and copies of transcripts of both undergraduate and graduate work. Three letters of recommendation should be sent by the respondents directly to the chairman. Applications should be submitted by 12 February 1982 to: **Dr. Anna Ruth Brummett, Chairman, Department of Biology, Oberlin College, Oberlin, Ohio 44074.**

Oberlin College is an Equal Opportunity Employer.

FACULTY POSITION teaching anatomy, physiology, histology, and biology. Ph.D. required. Closing date: 15 February 1982. Send curriculum vitae, publications, teaching experience, and names of references to:

Search Committee
Biology Department
Frostburg State College
Frostburg, Maryland 21532

UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

Applicants are solicited for **FACULTY POSITIONS** in the following departments:

MEDICINE (Number 347): Associate professor/professor. Should be Board-certified and/or Board-eligible in internal medicine with experience in clinical aspects of rheumatic diseases. Laboratory training and publications in immunological areas desirable. Should be capable of carrying out independent investigative program in some immunological aspect of the connective tissue diseases. **PATHOLOGY** (Number 343): Assistant professor/associate professor—**anatomic pathologist.** Perform surgical pathology at affiliated hospitals. Board-certification in anatomic pathology and advanced training or experience in surgical/hematopathology. (Number 344) Associate professor/professor—**director, surgical pathology.** Direct surgical pathology service at university hospital. Board-certification in anatomic pathology, 4 years of experience and/or additional training in surgical/tumor pathology.

Applicants should send curriculum vitae, identifying vacancy number for which they are applying, to: **O. C. Coleman, Assistant Dean, College of Medicine, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Okla. 73190.** We are an Equal Opportunity Employer.

The Division of Gastroenterology in The University of Michigan is offering opportunities for training in **GASTROENTEROLOGICAL RESEARCH** (federally funded). This is available to U.S. citizens or registered immigrants holding M.D. and/or Ph.D. degrees. The program is interdisciplinary, involving significant participation by faculty in the Division of Endocrinology and Metabolism, the Departments of Surgery and Pathology, and the School of Pharmacy. Appointments depending on individual interests and preferences will be to one of three areas:

1) **GI Endocrinology** (preceptor, Dr. Chung Owyang), entero-pancreatic-insular axis, quantitative cytochemistry of oxyntic cell function,

2) **Hepatic Pathophysiology** (preceptor, Dr. Jorge J. Gumucio), liver cell heterogeneity, regulation of substrate delivery to acinar zones, and

3) **Immunopathology** (preceptor, Dr. William O. Dobbins, III), immunoregulation and control of immune response by thymic hormones in liver and intestine.

Inquiries should be directed to: **Keith S. Henley, M.D., Director, Research Training Program, Room D2109, SAC Building, University of Michigan Medical Center, Ann Arbor, Michigan 48109; telephone: 313-764-0206.** An Equal Opportunity/Affirmative Action Employer.

1 JANUARY 1982

POSITIONS OPEN

FACULTY VACANCIES IN BIOLOGY

The Department of Biological Sciences, University of Southern California, invites applications for two tenure-track faculty positions at the assistant professor rank:

- 1) **Microbiology**, with a strong background in general microbiology essential; establishment of research program, preferably in marine microbiology, attractive to graduate students and research support. Duties will include undergraduate and graduate teaching.
- 2) **Membrane Biochemistry**, with a strong background in cellular biology, with research interests in the mechanism of receptor-mediated responses. Preference will be given to those who will interact with the neurobiologists, developmental biologists, and molecular biologists in the department. Duties also include graduate and undergraduate teaching in biochemistry or developmental biology.

Send curriculum vitae, statement of research background and interests, and names of three references by 28 February 1982 to: **Dr. Bernard C. Abbott, Department of Biological Sciences, University of Southern California, Los Angeles, Calif. 90007.** An Affirmative Action/Equal Opportunity Employer

DEPARTMENT HEAD—The Department of Chemistry at Texas A & M University is seeking applications and nominations for the position of department head to begin as early as fall semester 1982. Opportunities are available for further departmental development. Candidates should have a good record of research accomplishment, and administrative experience is desirable but not essential. Applicants should submit curriculum vitae, a list of publications, and the names of three references to: **Dr. J. H. Lunsford, Chairman of the Selection Committee, Department of Chemistry, Texas A & M University, College Station, Texas 77843.** The closing date for receiving applications is 1 February 1982. *Texas A & M University is an Equal Opportunity/Affirmative Action Employer.*

IMMUNOLOGIST FACULTY POSITION. A tenure-track, 12-month assistant professorship for a person with background and research interest in cellular immunology, Ph.D., M.D., or equivalent degree, and at least 2 years of postdoctoral experience. Preference given to persons with teaching capability in microbiology and/or parasitology. Must be capable of establishing an independent research program and have an interest in teaching medical and graduate students. Position will be available 1 July 1982. Applicants should submit a letter outlining research and teaching interest, curriculum vitae, and bibliography and arrange for three letters of reference to be sent to: **Dr. Dean D. Manning, Department of Medical Microbiology, UNIVERSITY OF WISCONSIN MEDICAL SCHOOL, 1300 University Avenue, Madison, Wisconsin 53706.** An Equal Opportunity/Affirmative Action Employer.

Unexpected opening for **IMMUNOLOGIST**, Ph.D. or M.S. with considerable experience in research on identification and characterization of antigens and antibodies by advanced methods for long-established academic research group in New York City. Send curriculum vitae and references to: **Kurt Lange, M.D., Renal Section, Lenox Hill Hospital, 100 East 77 Street, New York, N.Y. 10021.**

IMMUNOLOGIST FRED HUTCHINSON CANCER RESEARCH CENTER

The Fred Hutchinson Cancer Research Center (FHCRC) conducts a broad-based program in basic biological sciences. The center wishes to recruit a faculty scientist with an established record of accomplishment in basic immunology to join this program. Considerable space and resources are available. Interested individuals should submit curriculum vitae and suggested references by 21 January 1982 to: **Associate Director for Scientific Programs, Fred Hutchinson Cancer Research Center, 1124 Columbia Street, Seattle, Wash. 98104.**

FHCRC is an Equal Opportunity/Affirmative Action Employer.

University of Michigan Medical School, Department of Anesthesiology, may have, from time to time, several positions available at the **INSTRUCTOR THROUGH PROFESSOR** level. Board-certified or -eligible anesthesiologist qualified to obtain Michigan licensure. Research, clinical, and didactic experience necessary. Reply to: **Box 2, SCIENCE.** A nondiscriminatory, Affirmative Action Employer.

POSITIONS OPEN

MEDICINAL CHEMISTRY FACULTY POSITION

College of Pharmacy, University of Michigan. Tenure-track position at assistant professor level effective 1 July 1982. Applicants should have a strong background in medicinal chemistry, Ph.D. degree in medicinal chemistry, organic chemistry, or related discipline, and at least 1 year of postdoctoral experience. Position will require teaching medicinal chemistry at graduate and undergraduate levels. Preference given to candidates with potential for establishing vigorous research program. Applicants should submit detailed curriculum vitae, list of publications, detailed summary of research interests, and three letters of recommendation to: **Dr. Leroy B. Townsend, Chairman, Search Committee, College of Pharmacy, The University of Michigan, Ann Arbor, Michigan 48109.** Applications should be received and completed by 15 February 1982. *A nondiscriminatory, Affirmative Action Employer.*

MICROBIOLOGY

The Department of Microbiology is seeking applicants for a tenure-track appointment at the level of assistant professor to begin 1 July 1982. Applicants should be qualified to participate in courses in immunology at the undergraduate and graduate level, and to develop an active research program. Preference will be given to those with experience in cellular or tumor immunology. For full consideration, curriculum vitae, together with a list of publications, a brief description of research interests, and the names of three references, should be sent by 28 February 1982 to: **Dr. David Eidinger, Head, Department of Microbiology, University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N 0W0.**

UNIVERSITY OF ALABAMA IN HUNTSVILLE Department of Biological Sciences

Applications are invited for two tenure-earning positions beginning 1 September 1982.

MICROBIOLOGIST—Assistant or associate professor. The successful candidate will have a background in general microbiology with teaching responsibilities at the undergraduate and graduate (M.S.) levels. General and medical microbiology, parasitology, and advanced pathogenic bacteriology are the primary courses.

VERTEBRATE BIOLOGIST—Rank open. The successful candidate will have a background in vertebrate biology with teaching responsibilities at the undergraduate and graduate (M.S.) levels. Introductory human anatomy and physiology, vertebrate biology, and histology are the primary courses.

Postdoctoral experience or evidence of future scholarly productivity in a developed or developing area will be an asset and the candidates will be expected to develop an independent research program. Salary will be competitive. The department has a strong research emphasis and interacts on a regular basis with the Johnson Environmental and Energy Center on campus.

Huntsville is a recognized cultural center in the Tennessee Valley area and one of three campuses in the University of Alabama System. Interested persons should submit curriculum vitae, statement of research interest, all post secondary transcripts (assistant and associate professor level applicants only), and names and addresses of four references by 15 February 1982 to: **Search Committee, Department of Biological Sciences, University of Alabama in Huntsville, Huntsville, Alabama 35899.**

The University of Alabama in Huntsville is an Equal Opportunity/Affirmative Action Institution.

MOLECULAR IMMUNOLOGY

Roswell Park Memorial Institute, a comprehensive cancer research center, has available three tenure-track positions which are open in the Department of Molecular Immunology. The department is expanding into the areas of idiotype manipulation and recombinant DNA technology. One of the positions is at the senior (full professor equivalent) level and two are at the junior level. No formal teaching is required at the institute, but graduate students are available through the institutional graduate program. The candidate for the senior staff position will be consulted in the selection of the junior candidates. Applications should be forwarded to: **Heinz Kohler, Chairman, Department of Molecular Immunology, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, New York 14263.** An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

Virginia Mason Research Center, an Equal Opportunity Employer, is seeking an M.D. or Ph.D. to **HEAD** a major new **Immunology Research Laboratory**. Appointment will be at the level of member (professor) or associate member (associate professor), depending upon qualifications. Candidates should have major research interests in one or more of the following areas: HLA and disease; immunobiology of rheumatic and autoimmune diseases; lymphocyte differentiation, function, and immunoregulation; and/or immunology as it relates to cancer. This laboratory head is expected to develop and pursue independent research ideas in the area of immunology as it relates to human disease and must be able to interact with clinicians. A successful major fund-raising campaign is under way to provide a stable base of support from which to launch grant applications.

All qualified candidates welcome; minorities and women encouraged to apply.

Please send résumé to: **John C. Houck, Ph.D., Director, Virginia Mason Research Center, 1000 Seneca Street, Seattle, Washington 98101.**

HEAD, DEPARTMENT OF MICROBIOLOGY, College of Veterinary Medicine and Biomedical Sciences, Colorado State University. Applications and nominations are invited for the position of head of a progressive and diversified department. Qualifications required are an earned doctoral degree (Ph.D., D.V.M., M.D., or equivalent), distinguished achievement in research and teaching, and demonstrated capacity for leadership. Research interests of the department include virology, immunology, bacteriology, and mycology at the molecular, veterinary, medical, and environmental levels. The department is responsible for undergraduate, graduate, and veterinary programs in microbiology. Deadline for receipt of applications is 15 February 1982. Candidates should submit curriculum vitae to: **D. Robertshaw, Chairman, Search Committee, Department of Physiology and Biophysics, Colorado State University, Ft. Collins, Colorado 80523. Colorado State University is an Equal Opportunity/Affirmative Action Employer. Equal Opportunity Office, 315 Student Services Building.**

PHARMACOLOGY: The Department of Pharmacology and Therapeutics, Schools of Medicine and Dentistry, State University of New York, invites applications for a full-time, tenure-track faculty position as assistant professor. Candidates must have a Ph.D. degree in pharmacology or in a closely related area; evidence of productive research experience with significant publications in molecular pharmacology will be expected. Preference will be given to candidates with at least 2 years of postdoctoral research experience. The position involves active participation in teaching of graduate and professional students and in departmental program development, as well as independent research in molecular pharmacology. Send curriculum vitae and also request that three letters of recommendation be sent to: **Dr. Edward A. Carr, Jr., 127 Farber Hall, State University of New York at Buffalo, Buffalo, N.Y. 14214. An Equal Opportunity/Affirmative Action Employer.**

PHYSICAL CHEMIST/PHYSICAL BIOCHEMIST ASSISTANT PROFESSOR UNIVERSITY OF MASSACHUSETTS, AMHERST

Applications invited for a tenure-track assistant professor position for September 1982. Active research and effective teaching expected. Send résumé, transcripts, proposed research program summary, and three letters of recommendation by 20 January 1982 to: **Faculty Search Committee, Department of Chemistry, University of Massachusetts, Amherst, Mass. 01003. An Equal Opportunity/Affirmative Action Employer.**

PHYSIOLOGY FACULTY POSITION. Assistant professor, tenure-track position for July 1982. An interest and postdoctoral research experience in gastrointestinal physiology, particularly in peptides of the gastrointestinal tract and their regulatory role, are preferred. Candidates will be expected to teach physiology of the digestive tract to medical students, to participate in graduate courses, and to develop an independent research program. Applicants should submit curriculum vitae, reprints, and statement of research interests and teaching experience, and have three letters of recommendation sent to: **Dr. Robert E. Forster, Chairman, Department of Physiology, School of Medicine, University of Pennsylvania, Philadelphia, Pa. 19104. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSITION AVAILABLE IN HUMAN ANATOMY

Applications invited for a position in the Department of Human Anatomy. Primary teaching responsibilities will be in the area of gross anatomy; demonstrated commitment to excellence in research and teaching essential; one or more years of experience after the doctoral preferred. Appointment at the assistant professor or associate professor level depending on individual's qualifications. Send complete curriculum vitae, including a statement of research interests and names of at least three references, to: **Dr. Allen C. Enders, Chairman, Department of Human Anatomy, School of Medicine, University of California, Davis, Calif. 95616.** Closing date for applications is 1 February 1982. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

HUMAN NEUROPSYCHOLOGY POSITION

Assistant professor (tenure-track) in the area of the neuropsychology of human aging, beginning August 1982. Applicants should have a research background in aging and cognitive neuroscience or neuropsychological assessment. They should be able to contribute to graduate and undergraduate teaching in the areas of developmental psychology and neuroscience. *The University of Maryland actively subscribes to a policy of Equal Educational and Employment Opportunities.* Applicants are invited to send curriculum vitae, at least three letters of recommendation, reprints, and a statement of research interests and plans to: **Professor William S. Hall, Chair, Search Committee, Department of Psychology, University of Maryland, College Park, Maryland 20742.** For best consideration, applications should be received by 15 February 1982.

ICHTHYOLOGY JOB DESCRIPTION

Cornell University solicits applications for a tenure-track position, preferably an assistant professor, in the Section of Ecology and Systematics to begin September 1982. We seek a systematic ichthyologist with broad interests in vertebrate biology and a strong research program. The successful candidate will participate in curation of the Ichthyology Collection. Teaching responsibilities include an upper-level course in biology of fishes, a share of the introductory vertebrate biology course, and participation in the graduate program in vertebrate biology. Applications must include curriculum vitae and names of three references, and will be reviewed 1 February 1982. Send application to: **Dr. W. N. McFarland, Section of Ecology and Systematics, Cornell University, Ithaca, New York 14850. Cornell University is an Affirmative Action/Equal Opportunity Employer.**

INVERTEBRATE PHYSIOLOGIST

The Department of Biology of the Pennsylvania State University invites applications for a tenure-track position for an invertebrate physiologist to begin fall 1982. A Ph.D. degree is required. Preference will be given to applicants who interface strongly with ecological and evolutionary aspects of invertebrate physiology and who will interact with present faculty in the department. 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 February 1982 to: **Invertebrate Physiologist, Search Committee, Department of Biology, 208 Mueller Laboratory, Box 5, Pennsylvania State University, University Park, Pa. 16802.**

An Equal Opportunity/Affirmative Action Employer

MAMMALOGIST. The University of Connecticut. Tenure-track, assistant or associate professor, starting January or September 1983. Candidates should have completed Ph.D. and will be expected to develop a strong research program and direct graduate students in one or more of the following areas of mammalian biology: systematics and biogeography, paleontology, evolution, theoretical systematics, or functional morphology. Duties include teaching comparative vertebrate anatomy, a graduate course in mammalogy, and perhaps another course. Application deadline is 15 February 1982. Send curriculum vitae, reprints, and names of three references to: **Carl W. Rettenmeyer, Head, Systematic and Evolutionary Biology, The Biological Sciences Group, The University of Connecticut, Storrs, Conn. 06268. An Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

HEAD, DEPARTMENT OF GENETICS AND DEVELOPMENT

The University of Illinois at Urbana-Champaign invites applications and nominations for the leadership of this 20-person department which is located in the School of Life Sciences and which offers B.S., M.S., and Ph.D. degrees. The candidate should be an accomplished and active scientist in genetics, development, or evolution, and a person with potential for strong and creative leadership in research and curricular matters for a department which comprises diverse interests. Rank will be at professor level, with salary negotiable; duties will commence in August 1982. Candidates should send curriculum vitae and the names of three references by 1 February 1982 to: **Chair, Search Committee, Department of Genetics and Development, University of Illinois, 515 Morrill Hall, 505 South Goodwin, Urbana, Ill. 61801. Telephone: 217-333-3616.**

An Affirmative Action/Equal Opportunity Employer

MEDICAL PHYSICIST POSITIONS AVAILABLE

The University of Texas Medical Branch at Galveston

The Department of Radiation Therapy is seeking two Ph.D.-level medical physicists to assume newly created positions on the medical school faculty. The duties of one position will require a working knowledge of the VAX-VMS Computer software for modern, sophisticated treatment planning techniques. Experience in programming the VAX-VMX Computer for treatment planning and experimental data analysis will be essential for the second position.

Both positions will encompass teaching and research in addition to clinical support activities. Faculty appointment will be consistent with training, experience, and academic achievement.

Send curriculum vitae by 30 January 1982 to:

**James Belli, M.D.
Professor of Radiation Therapy
Harvard Medical School
Sidney Farber Cancer Institute
44 Binney Street
Boston, Massachusetts 02115**

The University of Texas Medical Branch is an Affirmative Action/Equal Opportunity Employer.

PATHOLOGIST

Private practice position in 500-bed hospital in Southeast with new state-of-the-art laboratory. Clinical pathologist, preferably with subspecialty interest in immunology, hematology, and/or immunohematology. Will function as division director over several clinical laboratory sections, each supervised by another pathologist. Previous administrative experience and demonstrated management ability necessary. Board-certified, AP/CP or CP. Send curriculum vitae and references to:

Box 3, SCIENCE

POSTDOCTORAL FELLOW

Biochemist with background in protein chemistry and connective tissue. Present project involves study of bone and inflammation. Familiarity with these areas desirable. Must have completed Ph.D. in biochemistry or related discipline.

Salary commensurate with experience. Résumé to: **Administrator, Department of Otolaryngology and Maxillofacial Surgery, University of Iowa Hospitals, Iowa City, Iowa 52242.**

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

POSTDOCTORAL FELLOW AND/OR RESEARCH ASSOCIATE position available in Division of Immunology, Duke University Medical Center, for studies on human leukemia and adenocarcinoma antigens defined by monoclonal antibodies. Preference will be given to candidates with biochemical expertise in membrane antigen isolation and identification and/or experience in RIA or ELISA assays for human antigens. Salary commensurate with experience. Send curriculum vitae with letters of recommendation or names of references to: **Dr. Richard S. Metzgar, Department of Microbiology and Immunology, Duke University Medical Center, Durham, N.C. 27710. Duke University is an Equal Opportunity/Affirmative Action Employer.**

DIRECTOR OF GRADUATE PROGRAM IN ENVIRONMENTAL SCIENCE

The State University of New York (SUNY) College of Environmental Science and Forestry (CESF) invites nominations and applications for a tenurable position at the rank of professor to serve as director of the college-wide Graduate Program in Environmental Science (GPES). This is a calendar-year position, with the salary level dependent upon individual qualifications and experience. The director reports directly to the Vice President for Program Affairs (chief academic officer) and is a member of the college's Program Advisory Council.

The CESF is a specialized upper division/graduate center of the State University of New York, offering baccalaureate, master's, and doctor of philosophy degree programs. The GPES includes M.S. and Ph.D. programs with current emphases in environmental policy, environmental assessment and impact, energy conservation and development, land use planning, water resources management, and environmental communications.

The director: provides leadership for the management and development of an outstanding program of national stature; works to enhance program quality through interaction with students and 59 associated faculty; coordinates program development with school deans and college administrators; and coordinates curriculum design and development, recruitment of students, admissions and advisement, program reviews and evaluations, and the pursuit of extramural funding and cooperators.

Desirable qualifications include: an earned doctorate and experience in environmental science through such disciplines as public policy and administration, economics, planning, engineering, design, natural resources management, and so forth; administrative experience as a dean, department chairperson, program leader, and so forth; accomplishment in teaching, research, and public service; and proven skill in communication.

Applications must be received by 15 February 1982, and should include a statement of professional interest and goals, a résumé, a record of publications, and the names of three references. Applications and requests for additional information should be forwarded to:

Richard C. Smardon, Chair
GPES Director Search Committee
School of Landscape Architecture
SUNY College of Environmental Science and Forestry
Syracuse, New York 13210

The State University of New York is an Equal Opportunity/Affirmative Action Employer.

RESEARCH AND DEVELOPMENT ORGANIC CHEMIST

We are a leading international manufacturer of healthcare and life support devices and are in the process of recruiting for our new Research and Development Center in Elkton, Maryland.

M.S.—in organic chemistry or biochemistry with a minimum of 2 years R&D experience. Familiar with protein derivitization techniques. Knowledge of HPLC, G.C., and I.R.

In addition to competitive salary and liberal fringe benefits, we offer the opportunity for growth with a rapidly expanding company. Please send resume including salary history, in confidence, to:

Terumo Medical Corporation
Stephen Zalik
Director of Personnel
70 South Chapel Street
Newark, DE 19711

AN EQUAL OPPORTUNITY EMPLOYER M/F

Dean of the College of Medicine and Vice President for Academic Affairs

The Dean of the College of Medicine and Vice President for Academic Affairs is the principal academic officer of Downstate Medical Center, a Health Science Campus of the State University of New York. Downstate Medical Center includes: the seventh largest College of Medicine in the nation; a College of Nursing; a College of Health Related Professions; a School of Graduate Studies; and the State University Hospital.

Downstate Medical Center is the major Health Sciences resource and the only Medical School for the Borough of Brooklyn and it is the center of a large network of affiliations with other educational and service provider agencies.

In addition to serving as Dean of the College of Medicine, the Vice President is responsible for directing and coordinating the academic programs of the four colleges, for the formulation and implementation of academic policy, and for the management of the institution's academic resources. He/she reports directly to the President of the Medical Center.

Qualifications: An M.D. or Ph.D. with significant experience in a leadership role in medical education. The candidate's ability to develop educational and scientific programs of excellence will be a principal criterion for selection.

Please send application, before February 1, 1982, to Eugene B. Feigelson, M.D., Chairman, Search Committee, Downstate Medical Center, Box #1, 450 Clarkson Avenue, Brooklyn, NY 11203

State University of New York
Downstate Medical Center

Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

NEUROBIOLOGIST Zoology Department University of Wisconsin-Milwaukee

We anticipate an opening for an **ASSISTANT PROFESSOR**, tenure-track position, effective 30 August 1982. The candidate must have strong research commitment and the ability to attract extramural funding and to interact with associates in neurophysiology, cell biology, endocrinology, and behavior. Instructional responsibilities include teaching anatomy and physiology for preprofessional (health-related) students and an advanced course for zoology majors and graduate students. Ph.D. required; postdoctoral research experience preferred. Applications, including curriculum vitae, summary of research goals, and three letters of professional recommendation should be sent to: **Professor Jon Copeland, Chairperson, Neurobiologist Search Committee, Zoology Department, P.O. Box 413, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin 53201.** Closing date is 15 February 1982.

The University of Wisconsin-Milwaukee is an Equal Opportunity/Affirmative Action Employer. Qualified women and members of minority groups are urged to apply.

PHYSIOLOGIST

Adjunct assistant/associate/full professor of physiology with interest in microcirculation and/or peripheral circulation to participate in development of microcirculatory research unit at Veterans Administration Hospital. Applicants are expected to have a strong research background and active research program. Ample opportunities are available for collaborative research with clinical faculty and basic scientists. Opportunities also exist for teaching at undergraduate and graduate levels. Interested persons should apply to: **Dr. Paul Johnson, Department of Physiology, University of Arizona, College of Medicine, Tucson, Arizona 85724,** detailing background and current research activities. Applications must be received by 15 February 1982.

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

PLANT CELL BIOLOGIST

Senior position available for experienced scientist specializing in cell growth and wall development. Applicants should have a strong commitment to undergraduate and graduate teaching and to research. Send curriculum vitae, bibliography, and three letters of recommendation by 10 February to: **Dr. Guy A. Thompson, Jr., Department of Botany, University of Texas at Austin, Austin, Texas 78712.** *The University of Texas at Austin is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION. Positions are available for recent Ph.D. graduates interested in advanced training and research in experimental cancer chemotherapy. Areas currently under study are: (i) the biochemical pharmacological basis of anticancer effects inclusive of pharmacokinetics drug biotransformation and target cell determinants of drug action; (ii) the selective effects of drugs on the various components and interactions involved in immune responses to tumor and nontumor antigens; (iii) the regulation of cell metabolism by hormones, nucleotide pools, and cyclic nucleotides, particularly cyclic CMP; (iv) the pharmacological and cellular basis for chemical carcinogenic transformation in animals and in tissue culture; and (v) clinical pharmacological studies on drug selectivity. Nucleosides, antifolates, polyamines, carbohydrates of the plasma membrane, and anthracycline antibiotics are among the classes of agents studied. Reply in writing to: **Dr. E. Mihich, Department of Experimental Therapeutics, Grace Cancer Drug Center, Roswell Park Memorial Institute, Buffalo, New York 14263.** Please include curriculum vitae and indicate at least two references. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS available immediately to study interaction of hyperthermia and ionizing radiation on cell cycle progression and cell survival in synchronous mammalian cells in culture or in normal tissues in vivo. Background in radiation biology, hyperthermia, or mammalian cell culture required. Salary commensurate with experience; renewable for 2 to 3 years. Please send résumé and names of three references to: **Dr. D. B. Leeper, Laboratory of Experimental Radiation Oncology, Department of Radiation Therapy, Thomas Jefferson University Hospital, Philadelphia, Pa. 19107.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

Applications are invited from suitably qualified candidates for the post of:

POSTDOCTORAL FELLOW REFERENCE NUMBER PDF/L4/81/1

A position is available for a postdoctoral fellow to work with the Immunobiology Unit on the definition of cells of the bovine immune system. Applicants must have experience in preparing, maintaining, and testing functional T cell, natural killer cell, and so forth, clones from a mammal. The successful applicant will be expected to work closely with other members of the unit who have produced monoclonal antibodies against bovine B cell, T cell, and macrophage surface membrane determinants. The studies are directed towards understanding bovine immune response against African trypanosomes and *Theileria* infected bovine cells. This is an international position, the salary will be paid in U.S. dollars, and the successful applicant will be assisted with moving expenses.

Applications identified with reference number, including curriculum vitae, summary of Ph.D. thesis, and three references should be sent to:

**Chief Personnel Officer
ILRAD
P.O. Box 30709
Nairobi, Kenya**

Closing date: 29 January 1982.

POSTDOCTORAL POSITION available 1 January 1982 in cellular biology/biochemistry and immunocytochemistry. Glycoprotein biosynthesis, structure, and secretion. Interest or experience in monoclonal antibody techniques, glycoprotein biochemistry, or electron microscopy. Send curriculum vitae and names of three references to: **Dr. James R. Etchison, California Primate Research Center, University of California, Davis, California 95616.**

POSTDOCTORAL POSITION AVAILABLE

Research on the selection of more efficient mycorrhizal associations in crop plants. Send curriculum vitae and arrange for two letters of reference to be directed to: **Dr. A. D. M. Glass, Botany Department, University of British Columbia, Vancouver, British Columbia, Canada V6T 2B1.** Telephone: 604-228-3342.

POSTDOCTORAL POSITION available immediately for 3 to 4 years to study gene expression and recombination in double-stranded RNA viruses. A background in recombinant DNA technology is essential. Minimum salary: \$16,000 plus benefits. Send résumé and two letters of recommendation to: **Dr. P. Roy, School of Public Health, 404 Tidwell Hall, University of Alabama in Birmingham, University Station, Birmingham, Alabama 35294.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION—Available after 1 March 1982 to study regulation of actin polymerization in vitro and in vivo or aspects of protein structure function relationships in enzymes. Background in protein chemistry desirable. Send curriculum vitae and list of three references to: **Dr. Carl Frieden, Department of Biochemistry, Washington University School of Medicine, St. Louis, Mo. 63110.**

THE OHIO STATE UNIVERSITY POSTDOCTORAL RESEARCHER

The Chemical, Biomedical, Environmental Research Group (CBERG), an interdisciplinary group of research scientists at the Ohio State University, invites applications for the position of **POSTDOCTORAL RESEARCHER** to complement and enhance current research programs involving the cellular and molecular mechanisms of carcinogenesis, mutagenesis, teratogenesis, and detection of genotoxins. Approaches being utilized include in vitro and in vivo animal and human model systems, HPLC and immuno-characterization of DNA damage and repair, and the use of recombinant DNA technology. The selected candidates should have demonstrated experience in **IMMUNOCHEMISTRY, CELL BIOLOGY, MOLECULAR BIOLOGY, or GENETIC TOXICOLOGY.** Candidates should send their curriculum vitae to: **Dr. Steven M. D'Ambrosio, CBERG, Room 105, Wiseman Hall, Ohio State University Hospitals, Columbus, Ohio 43210.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS available immediately for biochemists, molecular biologists, cell biologists, or immunologists to study molecular aspects of lymphocyte differentiation. The research will involve recombinant DNA technology and candidates with a strong background in this area are encouraged to apply. The appointments will be for 2 years with possibility of extension. Send curriculum vitae and three letters of reference to:

**Dr. William C. Raschke
La Jolla Cancer Research Center
10901 North Torrey Pines Road
La Jolla, Calif. 92037**

POSTDOCTORAL POSITION IN NEUROEMBRYOLOGY available for two or more years in project on synapse formation in chick auditory system with active neuroanatomy group using classical and state-of-the-art technology. The research focuses on tissue interactions and experimental morphogenesis, particularly microsurgical, transplantation (including chick-quail marking), and organotypic culturing experiments. Possibilities for electrophysiological and biochemical studies. Qualified candidates with a strong background in one of the biological areas of neuroscience should send curriculum vitae, bibliography, reprints, and references to: **D. K. Morest, Department of Anatomy, University of Connecticut Health Center, Farmington, Conn. 06032.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available for immunologist or biochemist to study basic mechanism of host or cellular interactions with unicellular parasite in vivo and in vitro. Send curriculum vitae and names of three references to: **Dr. F. Kierzenbaum, Department of Microbiology and Public Health, Michigan State University, East Lansing, Michigan 48824.** *An Affirmative Action/Equal Opportunity Institution.*

POSTDOCTORAL POSITION

Available immediately for Ph.D. with a strong interest and training in immunobiology/immunochimistry. The successful candidate will participate in developing human-human hybridomas which secrete clinically useful antibodies. Experience in cell culture techniques necessary. Salary negotiable, depending on qualifications. Send curriculum vitae and names of three references to: **Dr. Herbert Kupchik, Department of Microbiology, Boston University Medical Center, 80 East Concord Street, Boston, Mass. 02118.** *An Equal Opportunity Employer, M/F.*

UNIVERSITY OF CALIFORNIA, IRVINE

POSTDOCTORAL/RESEARCH ASSOCIATE. A 2-year research project on identification of injury and mechanisms of action of formaldehyde on ciliated, mucus-secreting (respiratory) epithelia and on alveolar ducts and alveoli of mammalian lung is ready for participation by a doctoral-level research associate or recent doctoral graduate in cell biology of motile organelles. SEM and TEM, histochemistry, cell membrane characterization in differentiated cells, or related fields. Project support by senior investigators and facilities for mucociliary clearance of radio-labeled particles, light and electron microscopy, cell/organ culture, lung biochemistry, and inhalation exposure of animals to well-characterized experimental atmospheres; in medical school departments of the University of California, Irvine and Los Angeles. Salary commensurate with background, up to \$22,000. **AVAILABLE IMMEDIATELY** (fall 1981). Contact: **T. T. Crocker, M.D., Department of Community and Environmental Medicine, College of Medicine, University of California, Irvine, California 92717.**

An Affirmative Action/Equal Opportunity Employer

RENAL PHYSIOLOGIST (Ph.D.)—A Ph.D. renal physiologist research position is available in a newly developing Nephrology Division of a university-affiliated hospital located in a highly desirable area. The position is hospital-based and not grant-dependent. Salary is negotiable. Send curriculum vitae to: **Vincent DiScala, M.D., Professor of Medicine, Director, Division of Nephrology, Nassau Hospital, 259 First Street, Mineola, Long Island, New York 11501.**

SENIOR SCIENTIST with ongoing research program, fully equipped molecular laboratory for molecular gene transfer recombinant DNA technology available. Plenty of space; excellent salary. Apply to: **Papanicolaou Cancer Research Institute
c/o Dr. Julius Schultz
P.O. Box 016188
Miami, Fla. 33101**

Academic title available according to qualifications.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

Position available immediately for a period of 2 years for collaborative work in the field of cell motility. Interests of the laboratory are in immunocytochemical analysis of contractile proteins in the cytoplasm and nucleus and microinjection of fluorescent proteins into cells. Individuals with experience in antibody and/or protein purification preferred. Salary range is \$15,000 to \$17,000 per year. Please send résumé and three letters of reference to: **Dr. J. W. Sanger, Department of Anatomy/G3, University of Pennsylvania, School of Medicine, Philadelphia, Pa. 19104.**

The University of Pennsylvania is an Equal Opportunity Employer.

POSTDOCTORAL TRAINEE (M.D. or Ph.D.) available immediately. Positions in multidisciplinary studies related to neuronal and humoral mechanisms of blood pressure regulation and hypertension. Studies involve cell, molecular, neurobiological, neuropharmacological, as well as protein and nucleic acid chemical research on pressor substances and cultured cells. Persons with experience in neuropharmacology, neurobiology, cell and tissue culture, and protein and molecular biology will fit in the program. Send résumé to: **Tadashi Inagami, Ph.D., Director, Hypertension Center, Vanderbilt University School of Medicine, Nashville, Tennessee 37232. Vanderbilt is an Equal Opportunity Organization.**

PRESIDENT/ENTREPRENEUR

For newly formed NMR equipment company. State-of-the-art development of phosphorus NMR technology for noninvasive biochemistry and diagnostic imaging. President should be seasoned executive with general management experience in the development of high-technology systems. Background in biochemical and biomedical equipment, specifically diagnostic imaging, is highly desirable. The company enjoys a close association with a leading university at forefront of NMR research and clinical development. Contact: **Daniel W. Kollin, Johnston Associates Inc., Venture Firm, Pretty Brook Road, Princeton, New Jersey 08540. Telephone: 609-924-3131.**

POSITIONS OPEN

RESEARCH ASSOCIATE in lipid biochemistry. Work will be concerned with the metabolism and function of phospholipids in mammalian heart and brain, the control of phospholipase activity under normal and pathological conditions, and the biological effects of lipid metabolites. This position requires 2 years of relevant postdoctoral experience. Base salary: \$18,000. Submit curriculum vitae to: **Dr. H. H. O. Schmid, The Hormel Institute, University of Minnesota, Austin, Minn. 55912. University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages women and minority applicants.**

RESEARCH FELLOW/ASSOCIATE to participate in a team effort developing rapid antigen/antibody mediated infectious disease diagnostic assays. Position is open now. Ph.D. required. Experience in advanced separation techniques, animal modeling, and isotopes preferred. Salary: \$18,000 to \$22,000, depending on experience. Send curriculum vitae, statement of research background, and names of three references to: **J. Peter Rissing, M.D., Chief, Infectious Diseases, Medical College of Georgia, Augusta, Ga. 30912.**

TUMOR IMMUNOLOGIST

Tenure-track assistant professorship available to candidates with Ph.D. and/or M.D. degree and at least 2 years of postdoctoral experience. Especially seek those who wish to establish an independent research program to identify tumor-specific antigens or to investigate interactions of immune effector cells with tumor cells. Responsibilities include teaching in professional and graduate programs and interacting with clinicians treating cancer of the head and neck. By 15 February 1982 send curriculum vitae, three letters of recommendation, and a description of research plans to: **Dr. D. C. Bauer, Chairman, Department of Microbiology and Immunology, Indiana University School of Medicine, 1100 West Michigan Street, Indianapolis, Indiana 46223. Indiana University is an Equal Opportunity/Affirmative Action Educator, Employer, and Contractor. M/F.**

POSITIONS OPEN

THE UNIVERSITY OF IOWA PROFESSOR AND HEAD DEPARTMENT OF PHARMACOLOGY

The University of Iowa invites applications for the position of professor and head of the Department of Pharmacology in the College of Medicine. Applicants should be able to present evidence of substantial research achievement and acknowledged leadership in the field of pharmacology. The successful applicant will be expected to demonstrate and foster excellence in research and in teaching in the health sciences as well as at the undergraduate and graduate levels. Candidates should have earned a doctoral degree and demonstrated experience in administration, teaching, and in scholarly achievement.

Applicants should send current curriculum vitae and the names of three references to:

**Dr. Edward C. Heath, Chairman
Pharmacology Search Committee
Department of Biochemistry
Bowen Science Building
The University of Iowa
Iowa City, Iowa 52242**

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

WILDLIFE BIOLOGIST UNIVERSITY OF GUELPH

The Department of Zoology offers a faculty position at the assistant or associate professor rank for a wildlife biologist. The successful applicant will be expected to teach undergraduate courses including wildlife management and biology.

Candidates must have at least 2 years of postdoctoral experience and will be expected to develop a research and graduate program.

Position to be filled by 1 April 1982, subject to final budgetary approval.

Application, including curriculum vitae with the names of three referees, should be sent to: **The Chairman, Department of Zoology, College of Biological Science, University of Guelph, Guelph, Ontario, Canada N1G 2W1.** Only those applicants legally eligible to work in Canada need apply.

RESEARCH PLANT PATHOLOGY GROUP LEADER

E. I. du Pont de Nemours and Co., Inc. is seeking a Group Leader to direct and develop basic research programs in plant pathology.

The successful candidate will conduct an independent research program, and will also supervise the work of several Ph.D. plant pathologists in pursuing and developing new and effective approaches toward controlling plant diseases.

Qualifications needed include a Ph.D. in plant pathology as well as several years of basic research experience. Also desirable is some previous experience in supervising a multidiscipline research group.

Salary is competitive, and supplemented by a strong benefits program. Qualified candidates should send curriculum vitae, three references and a short statement of research interest and experience to: **Mrs. A. H. Rudershausen, Room 38976, Du Pont Co., Wilmington, DE 19898.**



Equal Opportunity Employer M/F

Congressional Science and Engineering Fellowships

Applications Invited

The American Association for the Advancement of Science (AAAS) invites applications for a 1-year Congressional Science and Engineering Fellowship it will offer for the period beginning 1 September 1982. The Fellowship Program provides an opportunity for accomplished and societally aware postdoctoral to mid-career scientists and engineers to participate in and contribute to the public policy-making processes within the Congress for approximately 1 year. Fellows work as special legislative assistants within the congressional staff system.

Persons may apply from any physical, biological or behavioral science or any field of engineering. The term "science" is used broadly to include the system sciences, public health, and other technical professions. In addition to the Fellowship awarded by the AAAS, about 25 others are given by participating professional societies some of which cosponsor awards with the Association. The AAAS runs the overall program for the set of Congressional Science and Engineering Fellows. (See article in *Science*, 2 October 1981, page 52, for details of the program and information on this year's Fellows.) Addresses of all participating societies are available from the address listed below.

The 1982-83 AAAS Congressional Science and Engineering Fellow will receive a stipend of \$24,000; an additional \$1500 is available for relocation expenses and travel in connection with the Program.

In order to obtain detailed information on the program and specific application requirements write: **Congressional Science and Engineering Fellow Program, American Association for the Advancement of Science, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036.**

The deadline for application is 19 February 1982. The award will be announced before 1 May 1982.

POSITIONS OPEN

DEPARTMENT OF PSYCHOBIOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

Applications are invited for two faculty positions: (i) **developmental neurobiology**, preferably someone using cellular and molecular approaches, and (ii) **cellular neurophysiology**. For both positions specific research area is less important than demonstrated scholarly promise and ability to interact in a broadly based Neurobiology Department. The positions are for assistant professorships but one may be filled at tenured level. Interested candidates should send résumé and representative reprints, and ask that three letters of reference be sent to: **Chair, Department of Psychobiology, University of California, Irvine, California 92717. Affirmative Action/Equal Opportunity Employer.**

POSITION AVAILABLE Department of Radiation Therapy The University of Texas Medical Branch at Galveston

Position is available at the **instructor or assistant professor** level for a **RADIATION THERAPIST**. The qualified candidate will have completed his/her residency training and be Board-certified. Those candidates with research interests will be strongly considered and opportunities for clinical and/or nonclinical research will be provided. Please send curriculum vitae to:

**James Belli, M.D.,
Professor of Radiation Therapy
Joint Center for Radiation Therapy
Harvard Medical School
44 Binney Street
Boston, Mass. 02115**

Application deadline is 30 January 1982. *The University of Texas Medical Branch is an Affirmative Action/Equal Opportunity Employer.*

SCIENTIFIC DIRECTOR

A new position of scientific director is available in a large regional blood center. The candidate should be capable of conducting an independent research program: basic, applied, or developmental. Although the major activity will be research, additional responsibilities will include assistance to the clinical divisions of the program in laboratory methodology, quality control, product development, and education. Candidates with a background in immunology, cell biology, or molecular biology/genetics are of interest. An experience in blood banking, histocompatibility, cell preservation, or clinical immunology are preferred, but not essential. Please send résumé to: **William C. Sherwood, M.D., Director, Penn-Jersey Regional Red Cross Blood Service, 23rd and Chestnut Streets, Philadelphia, Pa. 19103.**

SENIOR FACULTY POSITIONS FOR PHYSICIANS IN OCCUPATIONAL MEDICINE

One tenure faculty position and one full-time clinical faculty position are announced for participation in a residency program in the Department of Community and Environmental Medicine, California College of Medicine, and in the University of California Southern Occupational Health Center at the University of California, Irvine. Qualifications should include eligibility for medical licensure in California and certification by the Board of Preventive Medicine. Experience should include productivity as principal investigator with significant contributions to the scientific literature, ability to obtain extramural research support, research in an area relevant to occupational medicine, and demonstrated ability either in a clinical field relevant to occupational medicine or with preventive medicine programs in the workplace. Experience in instruction of medical students and occupational medicine residents is highly desirable. Responsibilities will include continued development of existing occupational medicine residency program, medical student instruction in occupational medicine, and development of a research program relevant to occupational medicine in a department that has growing capabilities in toxicology, epidemiology, biochemistry, and immunology.

Send curriculum vitae, statement of current research support, and names of three references to:

**T. Timothy Crocker, M.D.,
Professor and Chair
Department of Community and
Environmental Medicine
College of Medicine
University of California, Irvine
Irvine, California 92717**

An Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

Employment Opportunity

SENIOR TOXICOLOGY SPECIALIST with proven comprehensive knowledge of industrial toxicology as well as current and pending federal and state statutes pertaining to health and environmental research. This person represents the company in toxicology matters to agencies, committees, and other public bodies. Must establish, control, conduct, and interpret experimental animal procedures for toxicological and environmental experimentation, ensuring that all operations are in compliance with applicable government regulations when determining the degree of hazard for chemical intermediates and products.

Applicant must also be knowledgeable of guidelines and procedures established by agencies such as FDA, EPA, NCI, OECD, FIFA, TSCA, and CPSC. Ability to operate Scintillation counter, Polygraph, histopathologic and clinical chemistry-related equipment and computers. Will be required to travel. Work schedule is 8 a.m. to 4:30 p.m., 40-hour work week; \$30,000 per annum salary. Ph.D. in biology or toxicology or pharmacology or veterinary medicine with 3 years of experience in job offered, or 5 years of experience in toxicology.

**Michael Panknin, MESC—Job Service
3437 East Wackerly Road, Midland, Mich. 48640
Telephone: 517-835-7134**

PROGRAMS

CAREER CHANGE

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

M.S. Program in Aquatic Biology

Assistantships are available for students interested in the M.S. Program in Aquatic Biology at Southwest Texas State University (SWTSU). Both laboratory teaching and research assistantships are open to qualified students working in areas such as reservoir limnology, fisheries management, ground-water ecosystems, aquatic parasitology, and stream ecology. Stipends are currently \$563 per month for the academic year plus a waiver of out-of-state tuition. For further information, contact: **Dr. B. G. Whiteside, Director, Aquatic Station, SWTSU, San Marcos, Texas 78666.**

TRAINING GRANT

POSTDOCTORAL NIH TRAINING GRANT position with one of several faculty members performing hematology research. Research areas include erythropoietin, biochemistry, protein synthesis and hemoglobinopathies, thrombopoietin and platelet physiology, canine cyclic hematopoiesis, and fibrinogen split products and coagulation. Two-year appointments, \$14,000 to \$16,000. Send curriculum vitae, including research goals and names of three referees, to: **Robert D. Lange, M.D., Department of Medical Biology, University of Tennessee College of Medicine, Knoxville, 1924 Alcoa Highway, Knoxville, Tenn. 37920. Telephone: 615-971-3165.**

An Equal Opportunity/Affirmative Action Employer

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS IN IMMUNOLOGY

Positions available for postdoctoral training in basic immunology (idiotypic regulatory mechanisms) and applied problems (tumor immunology and leukemia virus lymphocyte interactions). Other related activities in the department include research on biology of interleukins, interferons, and cellular immunity (cytotoxic and NK cells). Send complete curriculum vitae and references to:

**Jan Cerny, M.D., Ph.D.,
Department of Microbiology
University of Texas Medical Branch
Galveston, Texas 77550**

An Equal Opportunity/Affirmative Action Employer

FELLOWSHIPS

DOCTOR OF ARTS IN BIOLOGY: FELLOWSHIPS are available for qualified persons interested in the D.A. degree in biology. The program stresses preparation for undergraduate teaching at colleges and universities. Applicants should hold a master's degree in some area of biology. Deadline for receipt of application is 1 March 1982. For more information, contact: **Chairman, D.A. Committee, Department of Biology, Idaho State University, Pocatello, Idaho 83209. An Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP available through a National Institute of Health training grant for the study of phagocyte biochemistry with special emphasis on oxygen-mediated mechanisms of injury. The position is open to U.S. citizens and permanent residents who have an M.D. or Ph.D. Send curriculum vitae and names of three references to: **Stephen J. Weiss, M.D., Simpson Memorial Institute, 102 Observatory, Ann Arbor, Mich. 48109.**

POSTDOCTORAL FELLOWSHIP. Training in the physiology and cultivation of host-dependent agents. Immediate focus is *Mycobacterium leprae*. Available 1 March 1982 for persons experienced in microbial physiology, metabolism, and biosynthesis. Send curriculum vitae, current research interests, three letters of recommendation, and reprints to: **BOX 1, SCIENCE. Equal Opportunity Employer.**

PREDOCTORAL TRAINING IN TOXICOLOGY. Rutgers, The State University of New Jersey, is currently accepting applications for the 1982-1983 academic year for M.S. and Ph.D. training in environmental and industrial toxicology for full- or part-time study. Fellowships are available on a competitive basis. The interdisciplinary faculty is drawn from each of the college divisions of Rutgers, the New Jersey College of Medicine and Dentistry, and nearby industry. For further information, write to: **Dr. Robert Snyder, Director, Joint Graduate Program in Toxicology, Rutgers, The State University of New Jersey, Box 789, College of Pharmacy, Piscataway, New Jersey 08854.**

POSTDOCTORAL FELLOWSHIP DEPARTMENT OF OCEANOGRAPHY UNIVERSITY OF BRITISH COLUMBIA

Available 1 January 1982 for studies of the mineralogy and geochemistry of deep ocean ferromanganese nodules and the relationships between nodules and their associated sediments. Salary: \$16,000. Send curriculum vitae, statement of research interests, and names of three referees to: **S. E. Calvert, Department of Oceanography, University of British Columbia, Vancouver, British Columbia, Canada V6T 1W5.**

TRAINEESHIPS

POSTDOCTORAL TRAINEESHIPS IN CELLULAR AGING

Two postdoctoral positions will be available between June and September 1982 in the area of in vitro cellular aging, funded through a training grant from the National Institute on Aging. A wide range of research interest can be accommodated under the training grant, including clonal analysis of senescence, somatic cell hybridization, biology of endothelium, regulation of cell multiplication and function, connective tissue biology, molecular genetics, biology of ciliated cells, and development of new in vitro cell types relevant to the study of aging.

Appointments will be for 2 years at a starting salary of at least \$13,380 per year, plus liberal benefits. Each stipend also carries travel and supply money, and the fellow may take advantage of the courses in in vitro cell biology offered by the Cell Science Center's Education Program.

Candidates must have an interest in aging research, and must also be permanent residents of the United States and be committed to a career in aging research.

Interested persons should send curriculum vitae, names of references, and specific areas of interest to:

**Personnel Department
W. Alton Jones Cell Science Center, Inc.
Old Barn Road
Lake Placid, New York 12946**

An Affirmative Action/Equal Opportunity Employer



MARINE BIOLOGICAL LABORATORY

Woods Hole, Massachusetts 02543

announces **SHORT COURSES, SPRING 1982**, including a new offering on autoradiography in electron microscopy. These intensive instructional programs emphasize laboratory work and are intended primarily for scientists and physicians actively engaged in research.

SCANNING ELECTRON MICROSCOPY IN THE BIOLOGICAL SCIENCES — February 28 - March 5, 1982
Bruce Wetzel of the National Cancer Institute will be Instructor in Chief for the fourth offering of this program and will be assisted principally by Ralph Albrecht of the University of Wisconsin. Course attendance is limited to 12.

ELECTRON PROBE X-RAY MICROANALYSIS IN BIOLOGY, MEDICINE, & MATERIALS SCIENCES — March 7 - 12, 1982

Instructor in Chief will be A.J. Tousimis of Tousimis Research Corporation, assisted principally by L.S. Birks of the Naval Research Laboratory. This course is being offered for the second time, and attendance is limited to 12.

FREEZE—ETCHING IN ELECTRON MICROSCOPY — March 28 - April 2, 1982

Russell Steere, U.S. Department of Agriculture, Instructor in Chief, with principal assistance from John Rash of the University of Colorado. Attendance is limited to 16 for this fifth offering of the program.

AUTORADIOGRAPHY IN ELECTRON MICROSCOPY — April 4 - 9, 1982

For this newly offered course, M.A. Williams, University of Sheffield, U.K., will be Instructor in Chief. John Baker of Ciba Geigy Pharmaceuticals Division, Sussex, U.K. will assist principally with attendance limited to 16.

SHORT COURSES scheduled for **LATE SPRING** include Electron Microscopy in the Biological Sciences, Blair Bowers, N.I.H., and Morton Maser, M.B.L., Instructors in Chief; Analytical and Quantitative Light Microscopy in Biology, Medicine, & Materials Science, Shinya Inoué, M.B.L.; and Light Microscopy in Biological Research, an M.B.L. Short Course to be conducted at the University of California at Santa Cruz, Edward Salmon, University of North Carolina, and D. Lansing Taylor, Harvard University.

ADDITIONAL INFORMATION on course content and application materials may be obtained from the Admissions Office, Marine Biological Laboratory, Woods Hole, MA 02543; telephone (617) 548-3705. MBL is an Equal Opportunity Institution.

SCIENTIFIC RESEARCH

UNIVERSITY RESIDENT RESEARCH PROGRAM

The Air Force Office of Scientific Research seeks faculty members with unique scientific expertise to carry out challenging research in Air Force laboratories. One year appointments are available at research organizations located in Arizona, California, Colorado, Florida, Massachusetts, New Mexico, New York, Ohio, Texas and Washington, D.C. Appointment starting date and salary are negotiable.

The following areas are of particular interest in Air Force research:

Aerospace Sciences

Chemical and Atmospheric Sciences
Electronic and Material Sciences

Life Sciences

Mathematical and Information Sciences
Physical and Geophysical Sciences

To be eligible for participation, individuals must be U.S. Citizens currently serving as full-time faculty members of U.S. institutions of higher education; have an earned PhD in a scientific discipline or engineering; and have a publication record in their proposed area of research. All qualified applicants will receive consideration without regard to age, color, race, religion, sex or national origin. Successful applicants will require letters of endorsement from the university dean and department chairperson.

Interested individuals are requested to send a resume, list of publications, and one-page summary of proposed research to:

Major Richard W. Kopka
AFOSR/XOT-81-1
Bolling Air Force Base, Washington, DC 20332
Phone (202) 767-5016

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

Air Force Systems Command
Equal Opportunity Employer



Washington Tapes

AAAS Annual Meeting and Exhibit
Washington, DC 1982

For a list of those sessions taped at this year's Annual Meeting and Exhibit visit the
Mobiltapes Sales Desk
AAAS Registration Area
Washington Hilton

(Program abstract included with each title)