

Books Received

Advances in Biophysics. Vol. 12. Masao Kotani and Haruhiko Noda, Eds. Japan Scientific Societies Press, Tokyo, and University Park Press, Baltimore, 1979. x, 240 pp., illus. \$29.50.

Advances in Cancer Research. Vol. 30. George Klein and Sidney Weinhouse, Eds. Academic Press, New York, 1979. xii, 360 pp., illus. \$34.

Advances in Cyclic Nucleotide Research. Vol. 11. Paul Greengard and G. Alan Robison, Eds. Raven, New York, 1979. x, 388 pp., illus. \$35.

Advances in Genetics. Vol. 20. E. W. Caspari, Ed. Academic Press, New York, 1979. x, 464 pp., illus. \$41.

Advances in Heterocyclic Chemistry. Vol. 24. A. R. Katritzky and A. J. Boulton, Eds. Academic Press, New York, 1979. xii, 462 pp., illus. \$48.

Advances in Immunology. Vol. 27, 1979. Henry G. Kunkel and Frank J. Dixon, Eds. Academic Press, New York, 1979. x, 384 pp., illus. \$29.50.

Advice to a Young Scientist. P. B. Medawar. Harper and Row, New York, 1979. xvi, 112 pp. \$8.95. Alfred P. Sloan Foundation Series.

Against Infinity. An Anthology of Contemporary Mathematical Poetry. Ernest Robson and Jet Wimp, Eds. Primary Press, Parker Ford, Pa., 1979. viii, 90 pp., illus. Cloth, \$17; paper, \$8.95.

Against Ourselves. Disorders from Improvements under the Organic Limitedness of Man. D. G. Garan. Philosophical Library, New York, 1979. x, 310 pp. \$9.75.

Alcoholism in Perspective. Marcus Grant and Paul Gwinner, Eds. University Park Press, Baltimore, 1979. 174 pp., illus. \$14.50.

Algebraic Geometry. Papers from a meeting, Copenhagen, Aug. 1978. K. Lønsted, Ed. Springer-Verlag, New York, 1979. vi, 658 pp. Paper, \$31.90. Lecture Notes in Mathematics, vol. 732.

Basic Anatomy. A Laboratory Manual. The Human Skeleton/The Cat. B. L. Allen. Freeman, San Francisco, ed. 2, 1979. xviii, 172 pp., illus. Paper, \$8.75.

Biochemical Aspects of Nutrition. Proceedings of a conference, Nagoya, Japan, Oct. 1977. Kunio Yagi, Ed. Japan Scientific Societies Press, Tokyo, and University Park Press, Baltimore, 1979. x, 238 pp., illus. \$49.50.

Biochemical Engineering. Papers from a conference, Henniker, N.H., Aug. 1978. W. R. Vieth, K. Venkatasubramanian, and A. Constantinides, Eds. New York Academy of Sciences, New York, 1979. viii, 314 pp., illus. \$55. *Annals of the New York Academy of Sciences*, vol. 326.

Biochemistry. Springer-Verlag, New York, 1979. iv, 180 pp., illus. \$47.30. Topics in Current Chemistry 83.

Biochemistry and Pharmacology of Ethanol. Edward Majchrowicz and Ernest P. Noble, Eds. Plenum, New York, 1979. Two volumes. Vol. 1, xxx, 703 pp., illus. \$47.50. Vol. 2, xxviii, 572 pp., illus. \$42.50.

Biochemistry and Physiology of Protozoa. Vol. 1. M. Levandowsky and S. H. Hutner, Eds. Academic Press, New York, ed. 2, 1979. xvi, 462 pp., illus. \$45.

Biochemistry of Alcohol and Alcoholism. L. J. Kricka and P. M. S. Clark. Horwood, Chichester, England, and Halsted (Wiley), New York, 1979. 286 pp., illus. \$57.95. Ellis Horwood Series in Chemical Science.

Biochemistry of Nutrition I. A. Neuberger and T. H. Jukes, Eds. University Park Press, Baltimore, 1979. xii, 332 pp., illus. \$29.50. International Review of Biochemistry, vol. 27.

Biochromy. Natural Coloration of Living Things. Denis L. Fox. University of California Press, Berkeley, 1979. xiv, 248 pp. + plates, \$24.50.

Biogeochemical Cycling of Mineral-Forming Elements. P. A. Trudinger and D. J. Swaine, Eds. Elsevier, New York, 1979. viii, 612 pp., illus. \$97.50. Studies in Environmental Science 3.

C. P. Ramanujam. A Tribute. Published for the Tata Institute of Fundamental Research by Springer-Verlag, New York, 1978. x, 362 pp., illus. \$16.50.

Calendar History of the Kiowa Indians. James Mooney. Smithsonian Institution Press, Washington, D.C., 1979. xiv + pp. 129-460, illus. + plates. Paper, \$8.95. Classics of Smithsonian Anthropology. Reprint of the 1898 edition.

Chance, Cause, Reason. An Inquiry into the Nature of Scientific Evidence. Arthur W. Burks. University of Chicago Press, Chicago, 1979. xvi, 694 pp. Paper, \$12.50. Reprint of the 1977 edition.

Charge Transfer Processes in Condensed Media. Jens Ulstrup. Springer-Verlag, New York, 1979. viii, 420 pp. Paper, \$19.50. Lecture Notes in Chemistry, vol. 10.

The Chemical Reactor Omnibook. Octave Levenspiel. Published by the author, Corvallis, Ore., 1979 (distributor, OSU Book Stores, Corvallis, Ore.). Various pages, illus. \$21.75.

Chemistry of Natural Products—II. Papers from a symposium, Golden Sands, Bulgaria, Sept. 1978. R. Vlahov, Ed. Pergamon, New York, 1979. vi + pp. 681-856, illus. \$30. Reprinted from *Pure and Applied Chemistry*, vol. 51, No. 4.

Child Advocacy. New Professional Roles for Helping Families. Jack C. Westman. Free Press (Macmillan), New York, and Collier Macmillan, London, 1979. xvi, 432 pp. \$16.95.

Classics in Software Engineering. Edward Nash Yourdon, Ed. Yourdon Press, New York, 1979. xii, 424 pp., illus. Paper, \$28.

Clinical and Experimental Neurology. John H. Tyrer and Mervyn J. Eadie, Eds. University Park Press, Baltimore, 1979. viii, 316 pp., illus. \$37.50.

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Coal Conversion Technology. C. Y. Wen and E. Stanley Lee, Eds. Addison-Wesley Advanced Book Program, Reading, Mass., 1979. xvi, 586 pp., illus. \$29.50. Energy Science and Technology, No. 2.

Cognitive Psychology. Robert L. Solso. Jerome Kagan, Ed. Harcourt Brace Jovanovich, New York, 1979. xii, 500 pp., illus. \$16.95.

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Diagnostics for Fusion Experiments. Proceedings of a course, Varenna, Italy, Sept. 1978. E. Sindoni and C. Wharton, Eds. Published for the Commission of the European Communities by Pergamon, New York, 1979. viii, 688 pp., illus. Paper, \$90.

Dictionary of Science and Technology. English-French. Compiled by A. F. Dorian. Elsevier, New York, 1979. x, 1586 pp. \$141.50.

A Doctor in the House? Information for Parents and Spouses of Premedical and Medical Students. John G. Bruhn, Ramiro Caballero, Martha G. Hinkley, and Marcus M. Purvis. University of Texas Medical Branch, Galveston, ed. 2, 1979. viii, 82 pp., illus. Paper, \$4.

Dosage Calculations in Radiation Therapy. William L. Saylor and Thomas E. Ames. Urban & Schwarzenberg, Baltimore, 1979. vi, 70 pp., illus. + figures. Spiral bound, \$17.50.

The Enduring Great Lakes. John Rousmaniere, Ed. Norton, New York, 1979. xiv, 112 pp., illus. \$12.95. A *Natural History* Book.

Energy-Efficient Community Planning. A Guide to Saving Energy and Producing Power at the Local Level. James Ridgeway with Carolyn S. Projansky. JP Press, Emmaus, Pa., 1979. 222 pp., illus. Cloth, \$14.95; paper, \$9.95.

Environmental Quality and Residuals Management. Report of a Research Program on Economic, Technological, and Institutional Aspects. Allen V. Kneese and Blair T. Bower. Published for Resources for the Future by Johns Hopkins University Press, Baltimore, 1979. xiv, 338 pp., illus. Cloth, \$25; paper, \$7.95.

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The Genesis of Diversity. Bryan Shorrocks. University Park Press, Baltimore, 1979. viii, 152 pp., illus. Paper, \$9.95.

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Humoral Immunity in Neurological Diseases. Papers from a NATA Advanced Study Institute, Antwerp, Belgium, Sept. 1978. D. Karcher, A. Lowenthal, and A. D. Strosberg, Eds. Plenum, New York, 1979. xvi, 668 pp., illus. \$59.50. NATO Advanced Study Institutes Series A, vol. 24.

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Individualized Assessment and Treatment for Autistic and Developmentally Disabled Children. Vol. 1., Psychoeducational Profile. Eric Schopler and Robert Jay Reichler. University Park Press, Baltimore, 1979. xvi, 212 pp., illus. + appendixes. Spiral bound, \$24.75.

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An Introduction to Cell Population Kinetics. William A. Aherne, Richard S. Camplejohn, and Nicholas A. Wright. University Park Press, Baltimore, 1979. viii, 88 pp., illus. Paper, \$9.95.

An Introduction to Instrumental Phonetics. Colin Painter. University Park Press, Baltimore, 1979. x, 214 pp. Paper, \$24.50.

Maps for America. Cartographic Products of the U.S. Geological Survey and Others. Morris M. Thompson. U.S. Geological Survey, Reston, Va., 1979 (available from the Superintendent of Documents, Washington, D.C.). xiv, 266 pp. \$11.

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Microlaryngoscopy and Endolaryngeal Microsurgery. Technique and Typical Findings. O. Kleinsasser. Translated from the second German edition (Stuttgart, 1976) by P. M. Stell. University Park Press, Baltimore, 1979. xii, 180 pp., illus. \$64.50.

Micro-organisms. Function, Form and Environment. Lilian E. Hawker and Alan H. Linton, Eds. University Park Press, Baltimore, ed. 2, 1979. viii, 392 pp., illus. Paper, \$19.95.

Mind/Body Integration. Essential Readings in Biofeedback. Erik Peper, Sonia Ancoli, and Michele Quinn, Eds. Plenum, New York, 1979. xx, 586 pp., illus. \$25.

New Trends in Heterocyclic Chemistry. R. B. Mitra, N. R. Ayyangar, V. N. Gogte, R. M. Acheson, and N. Cromwell, Eds. Elsevier, New York, 1979. xii, 408 pp., illus. \$75.50. Studies in Organic Chemistry 3.

The Next Seventy Years. Population, Food and Resources. Bernard Gilland. Abacus Press, Tunbridge Wells, Kent, England, 1979 (U.S. distributor, ISBS, Forest Grove, Ore.). viii, 134 pp., illus. \$17.95.

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Nutrition and Growth. Derrick B. Jelliffe and E. F. Patrice Jelliffe, Eds. Plenum, New York, 1979. xx, 452 pp., illus. \$37.50. Human Nutrition, vol. 2.

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Nutrition: Pre- and Postnatal Development. Myron Winick, Ed. Plenum, New York, 1979. xx, 496 pp., illus. \$39.50. Human Nutrition, vol. 1.

Oncogenesis and Herpesviruses III. Part 1, DNA of Herpesviruses, Viral Antigens, Cell-Virus Interaction. Proceedings of a symposium, Cambridge, Mass., July 1977. G. de-Thé, W. Henle, F. Rapp, and W. Davis, Eds. International Agency for Research on Cancer, Lyon, 1978 (U.S. distributor, WHO Publications Centre USA, Albany, N.Y.). iv, 580 pp., illus. \$30. IARC Scientific Publications No. 24.

Oncogenesis and Natural Immunity in Syrian Hamsters. J. J. Trentin, Ed. Karger, Basel, 1979. xiv, 214 pp. \$64. Progress in Experimental Tumor Research, vol. 23.

On Understanding Grammar. Talmy Givón. Academic Press, New York, 1979. xvi, 380 pp. \$24. Perspectives in Neurolinguistics and Psycholinguistics.

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Optical Activity and Chiral Discrimination. Proceedings of a NATO Advanced Study Institute, Falmer, England, Sept. 1978. Stephen F. Mason, Ed. Reidel, Boston, 1979. xii, 372 pp., illus. \$44.50. NATO Advanced Study Institutes Series C, vol. 48.

Optimal Economic Operation of Electric Power Systems. M. E. El-Hawary and G. S. Christensen. Academic Press, New York, 1979. xviii, 278 pp., illus. \$32.50. Mathematics in Science and Engineering, vol. 142.

The Papers of Josiah Bartlett. Frank C. Mevers, Ed. Published for the New Hampshire Historical Society by University Press of New England, Hanover, N.H., 1979. xl, 478 pp. \$25.

Personal Computing. Home, Professional and Small Business Applications. Daniel R. McGlynn. Wiley-Interscience, New York, 1979. xii, 264 pp., illus. Paper, \$9.95.

The Personal Electronics Buyer's Guide. Charles J. Sippl and Roger J. Sippl. Prentice-Hall, Englewood Cliffs, N.J., 1979. viii, 338 pp., illus. Cloth, \$16.95; paper, \$8.95.

Perspectives on the History of Psychoactive Substance Use. Gregory A. Austin. National Institute on Drug Abuse, Rockville, Md., 1978 (available from the Superintendent of Documents, Washington, D.C.). xxxviii, 282 pp. Paper, \$5.25. Research Issues Series, 24.

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Physics Without Math. A Descriptive Introduction. Gilbert Shapiro. Prentice-Hall, Englewood Cliffs, N.J., 1979. xvi, 352 pp., illus. \$14.95.

Placement in Rehabilitation. A Career Development Perspective. David Vandergoot and John D. Worrall, Eds. University Park Press, Baltimore, 1979. xii, 236 pp. \$14.95.

Placenta. A Neglected Experimental Animal. Proceedings of a discussion, London, Oct. 1978. Peter Beaconsfield and Claude Vilee, Eds. Pergamon, New York, 1979. xvi, 442 pp. Cloth, \$50; paper, \$22.

Placental Transfer. Geoffrey Chamberlain (Continued on page 1391)



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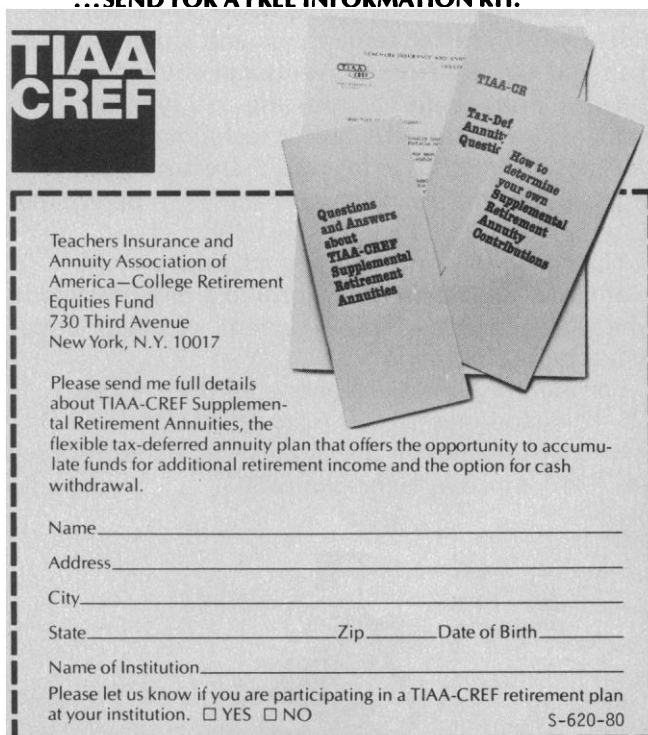
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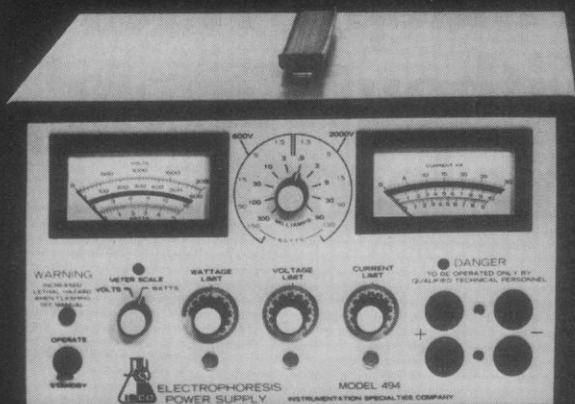
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(Continued from page 1365)

and Andrew Wilkinson, Eds. Pitman, London, 1979 (U.S. distributor, University Park Press, Baltimore). x, 212 pp., illus. \$39.50.

Plant Metabolism. Physiology and Biochemistry of Primary Metabolism. Gerhard Richter. Translated from the German edition (1976) by David J. Williams. Thieme, Stuttgart, 1978 (U.S. distributor, University Park Press, Baltimore). viii, 476 pp., illus. \$22.75.

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Progress in Behavior Modification. Vol. 8. Michel Hersen, Richard M. Eisler, and Peter M. Miller, Eds. Academic Press, New York, 1979. xiv, 326 pp. \$29.50.

Progress in Medical Virology. Vol. 25. Joseph L. Melnick, Ed. Karger, Basel, 1979. x, 180 pp., illus. \$58.25.

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Psychometrics and Psychology. Paul Kline. Academic Press, New York, 1979. x, 382 pp. \$40.

Psychosomatics in Peri-Menopause. A. A. Haspels and H. Musaph. University Park Press, Baltimore, 1979. 124 pp. \$14.95.

Rehabilitation Counseling Research. Brian Bolton with contributions by Paul Cooper, Daniel Cook, and Jim Harper. University Park Press, Baltimore, 1979. xx, 294 pp. Paper, \$14.95.

Reproduction of Marine Invertebrates. Vol. 5, Molluscs: Pelecypods and Lesser Classes. Arthur C. Giese and John S. Pearse, Eds. Academic Press, New York, 1979. xviii, 370 pp., illus. \$45.50.

Research in Sociology of Knowledge, Sciences and Art. A Research Annual. Vol. 2. Robert Alun Jones and Henrika Kuklick, Eds. JAI Press, Greenwich, Conn., 1979. vi, 250 pp. \$16; to institutions, \$31.

Respirable Particles. Impact of Airborne Fine Particulates on Health and the Environment. Frederica P. Perera and A. Karim Ahmed. Ballinger (Harper and Row), Cambridge, Mass., 1979. xiv, 182 pp., illus. \$16.50.

Role Theory. Expectations, Identities, and Behaviors. Bruce J. Biddle. Academic Press, New York, 1979. xii, 416 pp. \$19.50.

The Sacred Hoop. Bill Broder. Sierra Club Books, San Francisco, 1979. 252 pp., illus. \$12.95.

Science and Technology in the Soviet Union. A Profile. Ursula M. Kruse-Vaucienne and John M. Logsdon with the assistance of Maria

A. Behr, Constance A. Phlipot, and Benjamin L. Woodbury. Published for the National Science Foundation by George Washington University Graduate Program in Science, Technology, and Public Policy, Washington, D. C., 1979. vi, 90 pp., illus. Paper.

Second International Conference on Combinatorial Mathematics. New York, Apr. 1978. Allan Gewirtz and Louis V. Quintas, Eds. New York Academy of Sciences, New York, 1979. xii, 602 pp., illus. \$110. *Annals of the New York Academy of Sciences*, vol. 319.

Selected Papers. Saunders Mac Lane. I. Kaplansky, Ed. Springer-Verlag, New York, 1979. xiv, 556 pp. \$29.80.

Spectroscopy, Luminescence and Radiation Centers in Minerals. A. S. Marfunin. Translated from the Russian edition (Moscow, 1975) by V. V. Schiffer. Springer-Verlag, New York, 1979. xii, 354 pp., illus. \$49.80.

Speech and Language. Advances in Basic Research and Practice. Vol. 2. Norman J. Lass, Ed. Academic Press, New York, 1979. xii, 354 pp., illus. \$27.50.

Spontaneous Animal Models of Human Disease. Vol. 1. Edwin J. Andrews, Billy C. Ward, and Norman H. Altman, Eds. Academic Press, New York, 1979. xx, 322 pp., illus. \$52.50. American College of Laboratory Animal Medicine Series.

Standard Operating Procedures in Pathology. Including Developmental Toxicology and Quality Assurance. G. E. Paget and R. Thomson, Eds. University Park Press, Baltimore, 1979. xvi, 514 pp., illus. \$39.50.

Star Maps. Astonishing New Evidence from Ancient Civilisations and Modern Scientific Research of Man's Origins and Return to the Stars. Wm. R. Fix. Octopus, London, and Mayflower, New York, 1979. 256 pp., illus. Paper, \$9.95.

Strategies in Clinical Hematology. Papers from a meeting, Hamburg, Aug. 1979. R. Gross and K.-P. Hellriegel, Eds. Springer-Verlag, New York, 1979. x, 142 pp., illus. \$26.40. Recent Results in Cancer Research 69.

Treatise on Materials Science and Technology. Vol. 17, Glass II. Minoru Tomozawa and Robert H. Doremus, Eds. Academic Press, New York, 1979. xiv, 362 pp., illus. \$44.

Tritium in the Environment. Recommendations of the National Council on Radiation Protection and Measurements. National Council on Radiation Protection and Measurements, Washington, D.C., 1979. vi, 126 pp. Paper, \$6.75. NCRP Report No. 62.

XXVth International Congress of Pure and Applied Chemistry. Tokyo, 1977. Pergamon, New York, 1979. Vol. 2, Physical Chemistry. S. Nagakura, Ed. Various pages, illus. \$24. Vol. 3, Analytical Chemistry. T. Takeuchi, Ed. Various pages, illus. \$24. Vol. 4, Organic Chemistry. Various pages, illus. \$24. Reprinted from *Pure and Applied Chemistry*, vol. 50.

UFOS. A Pictorial History from Antiquity to the Present. David C. Knight. McGraw-Hill, New York, 1979. 192 pp. \$12.95.

Understanding Human Values. Individual and Societal. Milton Rokeach. Free Press, New York, 1979. x, 322 pp., illus. \$14.95.

Unsolvable Classes of Quantificational Formulas. Harry R. Lewis. Addison-Wesley Advanced Book Program, Reading, Mass., 1979. xviii, 198 pp., illus. Paper, \$13.50.

Uranium Enrichment. S. Villani, Ed. Springer-Verlag, New York, 1979. xii, 322 pp., illus. \$49.

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, or handicap.

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1515 Massachusetts Ave., NW
Washington, D.C. 20005

POSITIONS WANTED

Biochemist/Biochemical Pharmacologist: Ph.D. 1976. Experience in enzymology, drug metabolism, protein purification and characterization, membrane structure and function. Seeking research position in industry/government laboratory. Box 158, SCIENCE. X

Biochemist/Molecular Biologist (Ph.D.). Top qualifications. Experience: tissue culture/cancer research. Publications. Seeks position in university/hospital/government/industry. Box 159, SCIENCE. X

Ph.D. 1964, **Biochemistry.** Currently assistant professor, diabetes and triglyceride synthesis, lipoproteins, teaching postgraduate students, many publications. Box 160, SCIENCE. X

Biologist/Anatomist, Ph.D. 1972. Seeks to teach zoology, human anatomy and physiology, and histology in small college or university. No research requirements. Six years of undergraduate and 8 years of medical school teaching experience. Box 161, SCIENCE. X

Biomedical Engineer, Ph.D. 1974. Significant multidisciplinary research experience; analytical and experimental ability; well-published. Seeks research position in any promising scientific/technical field; university/industry. Box 162, SCIENCE. X

Medical Writer/Drug Information Specialist. Diversified experience—researching, developing, writing/editing scientific reports. Medical/pharmaceutical background. Pharmacy degree. Desires position with pharmaceutical/health care firm. Box 164, SCIENCE. 6/20, 27; 7/4, 11

Microbial Physiologist/Environmental Microbiologist. Ph.D. 1966. Fifteen years of experience in water and soil microbiology; isolation of significant microorganisms; degradation of toxic and hazardous substances; pesticide toxicity and metabolism. Laboratory, supervisory, and managerial experience. Desires industrial research/development position in microbial isolation, characterization, strain development, waste conversion, or biodegradation. Publications. Box 146, SCIENCE. 6/20; 7/4, 18

POSITIONS WANTED

General Microbiologist. Ph.D. 1980. Diverse interests and experience; research interests—bacterial/algal associations (freshwater and marine), cell/cell recognition, electron microscopy (TEM, SEM, freeze-fracture); publications; broad university teaching experience. Desires an innovative teaching and/or research position. Box 163, SCIENCE.

6/20, 27

Science Writer/Photographer available for coverage/documentation of expeditions and research. Meaningful investigations will gain exposure in regional and national publications. M. Gibson, M.A., P.O. Box 14542, San Francisco, California 94114. X

Zoologist. Ph.D. 1972. Teaching experience zoologist, 16 years; research marine zoology, 9 years; 15 publications; 3 biology books; 4 zoology books. Desires position in research/teaching. Will relocate. 5613 Crestwood Road, Matteson, Illinois 60443. Telephone: 312-720-9037. X

POSITIONS OPEN

University of Michigan. The Department of Surgery at the University of Michigan is seeking candidates for a position in **ACADEMIC GENERAL SURGERY**. The candidates should have demonstrated competence in clinical general surgery, teaching, and investigation, and have administrative interest and experience to manage a large Department of Surgery at a hospital affiliated with a university department. The candidates should have completed their residency in general surgery at a university hospital in the United States or Canada and be eligible or certified by the American Board of Surgery. Position level: assistant professor thru professor, depending upon qualifications, and director of surgery at Wayne County General Hospital. Reply to: Box 153, SCIENCE. Code 900G0. A nondiscriminatory, Affirmative Action Employer.

University of Michigan. The Department of Surgery at the University of Michigan is seeking candidates for a position in **ACADEMIC GENERAL SURGERY**. The candidates should have demonstrated competence in clinical general surgery, teaching, and investigation. Special interest or training in trauma would be desirable. The candidates should have completed their residency in general surgery at a university hospital in the United States or Canada and be eligible or certified by the American Board of Surgery. Level: instructor thru professor, depending on qualifications. Reply to: Box 154, SCIENCE. Code 200H0. A nondiscriminatory, Affirmative Action Employer.

AGRONOMY SPECIALIST—COTTON. Location: Shafter. Lead and coordinate statewide education and applied research program in development and extension of information on efficient production of cotton. Provide liaison between university, growers, and organizations interested in cotton. M.S. and experience required; Ph.D. desired. Contact: Academic Personnel Office, Cooperative Extension, 331 University Hall, University of California, Berkeley, Calif. 94720. Closing date: 25 July 1980. Refer to Number 8034.

PATHOLOGY CHAIRPERSON—The University of South Alabama, College of Medicine, located in Mobile, Alabama, is seeking highly qualified applicants for the position of chairperson in the Department of Pathology. Individuals with suitable academic and clinical experience and credentials are requested to forward their curriculum vitae and letters of interest to:

Dr. Joseph H. Coggin, Jr.
Chairman, Pathology Search Committee
c/o Department of Microbiology/Immunology
University of South Alabama
College of Medicine
Medical Sciences Building
Mobile, Alabama 36688

This position represents an outstanding and rewarding opportunity for an individual committed to excellence in service, research, and teaching. The University is an Equal Opportunity/Affirmative Action Employer. The College of Medicine is an accredited, state-supported, 4-year medical school which was established in 1970. The College of Medicine has a strong and developed basic science program, a growing and developing clinical science program, full residency programs, and well-trained graduate physicians.

POSITIONS OPEN

ANATOMIST. The Department of Anatomy, University of Louisville Health Sciences Center, invites applications for an appointment as assistant professor effective 1 July 1980. Preference will be given to candidates with teaching interests in histology. Research interests are open but strong indications of promise or achievement, as experience warrants, are desired. Send curriculum vitae and personal statement to: Dr. James B. Longley, Professor and Chairman, Department of Anatomy, University of Louisville Health Sciences Center, Louisville, Kentucky 40292. The University of Louisville is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR

The Department of Anatomy seeks applicants for the position of assistant professor. Tenure-track position. Applicants should have strong postdoctoral research training. Preference given to persons with research accomplishments in cellular kinetics and differentiation in mammalian systems. Teaching experience in gross anatomy.

Curriculum vitae with letter describing research and teaching interests and names of three references should be sent before 15 July 1980 to: Dr. Helen A. Padykula, Chairperson, Department of Anatomy.

55 Lake Avenue North
Worcester, Mass. 01605

University of
Massachusetts
Medical Center

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ASSISTANT PROFESSOR OF MICROBIOLOGY UNIVERSITY OF TENNESSEE, KNOXVILLE

Applications are invited for tenure-track position. Ph.D. and postdoctoral experience required. Candidate should have a major research interest in one of the following areas: (i) bacterial or fungal pathogenesis, using genetic/molecular/EM/immunological approaches; or (ii) applied microbiology (foods, industrial, agricultural, environmental) using a biochemical/molecular approach. Applicant should be committed to quality instruction at the undergraduate and graduate levels, and to development of an active research program. Applications should be received by 15 July 1980, and should include a résumé and three letters of reference. Send information to: Dr. W. Stuart Riggsby, Chairman, Search Committee, Department of Microbiology, University of Tennessee, Knoxville, Tenn. 37916. The University of Tennessee is an Equal Opportunity/Title IX/Section 504 Employer.

BIOMEDICAL RESEARCH

Applications are invited for appointments in the Immunologic Oncology Division, Department of Pediatrics, at the level of instructor/assistant professor. Ph.D. or M.D. is required with at least 1 year of postdoctoral training. Preference given to those with background in biochemistry, immunochemistry, and molecular immunology and experience in organizing data for computer analysis. Faculty appointment and salary commensurate with experience. Send curriculum vitae and reprints or other supporting documents to: Dr. J. N. Woody, Box 63, Medical-Dental Building, Georgetown University School of Medicine, 3900 Reservoir Road, NW, Washington, D.C. 20007. Georgetown University is an Equal Opportunity/Affirmative Action Employer. Applications from women and minorities are encouraged.

IMMUNOLOGY AND IMMUNOGENETICS

Postdoctorate or research assistant position available beginning summer 1980 to study cell interactions, immunogenetics, and tumor immunology. Send curriculum vitae and supporting documents to: Dr. J. N. Woody, Box 63, Medical-Dental Building, Georgetown University School of Medicine, 3900 Reservoir Road, NW, Washington, D.C. 20007. Georgetown University is an Equal Opportunity/Affirmative Action Employer. Applications from women and minorities are encouraged.

POSITIONS OPEN

ASSISTANT PROFESSOR, PATHOLOGY

The University of Wisconsin, Madison, is seeking an assistant professor of pathology to direct departmental electron microscopy laboratory. Applicant should have doctoral degree (for example, M.D., Ph.D., D.V.M.) with specialty in pathology, anatomy, or zoology and should have own active research program in pathology-related discipline.

Applicant is expected to develop and teach an EM technique course. Contact:

Dr. Stanley Inhorn
Pathology Department
University of Wisconsin School of Medicine
470 North Charter Street
Madison, Wis. 53706

Equal Opportunity Employer, M/F

ASSISTANT PROFESSOR POSITIONS—ZOOLOGY—Replacing faculty on leave. Positions temporary for one academic year. Department of Zoology, University of Maine at Orono. **Invertebrate biologist-ecologist:** responsible for general invertebrate course in fall semester, and introductory ecology course in spring semester. **Vertebrate biologist:** partial responsibility for undergraduate vertebrate biology course fall semester; full responsibility for second-semester introductory zoology course in spring semester. Course emphasis on systematics, physiology, behavior, and ecology. Academic year (9-month) appointments, beginning 1 September 1980. Ph.D. required; experience desirable. Send résumé, reprints, and three letters of reference to: Dr. Franklin L. Roberts, Chairman, Department of Zoology, University of Maine, Orono, Maine 04469. Deadline for receipt of applications: 10 July 1980. An Affirmative Action/Equal Opportunity Employer.

CHAIRPERSON OF MICROBIOLOGY. University of Maryland, College Park Campus. Candidates should submit evidence of scholarly activity in teaching and research and have the ability to provide administrative and academic leadership for a department of 13 faculty and 7 staff and large undergraduate and graduate programs. Send curriculum vitae and list of five references by 15 August 1980 to: Dr. Robert C. Hammond, Chairman, Microbiology Search Committee, Department of Veterinary Science, University of Maryland, College Park, Maryland 20742. An Equal Opportunity/Affirmative Action Employer.

STATE OF MAINE

DIRECTOR, BUREAU OF MARINE SCIENCES

The Department of Marine Resources. Ph.D. or equivalent position at Boothbay Harbor has responsibility for directing all marine research and fisheries management activities, including selection of biological problems to be investigated.

Further details, qualifications, and application materials available from: Maine Department of Personnel, State Office Building, Station Number 4, Augusta, Maine 04333. Telephone: 207-289-2821. Closing date is 16 July.

Equal Opportunity Employer, M/F

DIRECTOR OF ANATOMIC PATHOLOGY—The University of Massachusetts Medical School seeks a senior pathologist who will assume direct responsibility for surgical and autopsy pathology. Academic status of full professor. Applications from women and minority groups will be especially welcome. Write to: Dr. G. Majno, Department of Pathology, UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL, 55 Lake Avenue North, Worcester, Mass. 01605. An Affirmative Action/Equal Opportunity Employer.

THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

Applications are invited for the position of
DIRECTOR

of the Department of Physiology. Applicants should be eminent scholars in physiology and related areas of science, as reflected by a distinguished record of publication, and have personal qualities of excellence in teaching and leadership.

Please send letter of application and curriculum vitae to: Dr. David A. Blake, Secretary, Physiology Search Committee, Johns Hopkins University School of Medicine, 720 Rutland Avenue, Baltimore, Maryland 21205.

Johns Hopkins University is an Affirmative Action/Equal Opportunity Employer.

Deadline date for submission: 1 September 1980.

POSITIONS OPEN

The NEW ENGLAND AQUARIUM, Boston, Massachusetts, seeks to fill the position of **DIRECTOR OF EDUCATION**. The director is the principal administrative officer whose duties include the implementation and direction of educational programs and exhibits for visitors to the Aquarium, including students and the general public. The director of education assists the executive director in administrative and financial matters relative to the department and has administrative responsibilities for a staff of ten. A Ph.D. and/or expertise in biology, research, and teaching preferred. Send résumé to: **John H. Prescott, Executive Director, New England Aquarium, Central Wharf, Boston, Massachusetts 02110; telephone: 617-742-8830, by 8 August 1980. The New England Aquarium, a private, nonprofit educational institution, is an Affirmative Action/Equal Opportunity Employer.**

DIRECTOR OF RESEARCH AND PRODUCT DEVELOPMENT

Ph.D. in pharmacology with 3 to 5 years of experience in the U.S. human pharmaceutical industry with an understanding of both prescription and OTC products.

Duties are multiphased: new product development, including designing protocols for clinical testing and monitoring. Quality assurance and liaison with FDA, to ensure compliance with CGMP, and other FDA regulations. Interface with marketing and sales in preparation of advertising, and help with training of sales force in technical aspects of products.

Send résumé and salary history in confidence to: **The President, P.O. Box 827, Kansas City, Missouri 64141.**

DIRECTOR, HISTOCOMPATIBILITY LABORATORY

Large, community-based blood service needs experienced HLA person with doctoral degree to assume responsibility for regional support services for transplantation and transfusion problems, paternity testing, and other clinical services. Excellent research potential. Faculty appointment. *Equal Opportunity Employer*. Send letter describing personal goals and curriculum vitae to: **Box 157, SCIENCE.**

DIRECTOR, AGRICULTURAL EXPERIMENT STATION

AND ASSOCIATE DEAN OF AGRICULTURE

Applications and nominations are invited for the position of director of the Agricultural Experiment Station and associate dean of agriculture at Purdue University, West Lafayette, Indiana. The qualifications desired of candidates are a Ph.D. related to research areas in the Experiment Station plus experience demonstrating ability in research administration, public relations, policy formulation, and personnel management. The Experiment Station director has the responsibility for program and fiscal management of research and agricultural regulatory programs in agriculture, veterinary medicine, and consumer and family sciences, and is responsible to the dean of agriculture.

Candidates who wish to be considered should furnish a résumé and names of five references by 15 July 1980 to the following person:

Dr. Bernard J. Liska
Agricultural Administration Building
Purdue University
West Lafayette, Indiana 47907
Telephone: 317-749-6005

Purdue University is an Equal Opportunity Employer and encourages applications from women and minorities.

UNIVERSITY OF COLORADO SCHOOL OF MEDICINE FACULTY POSITION IN ENDOCRINOLOGY/METABOLISM

Assistant or associate professor, tenure-track position, sought to assume research teaching and patient care responsibilities. Candidate may be already at the junior faculty level or be in transition to faculty status. There is no particular preference as to a candidate's field of research interest within the general area of endocrinology and metabolism. Submit letter of application and curriculum vitae to: **Dr. Jerrold M. Olefsky, Professor of Medicine, Head, Division of Endocrinology, B151, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Denver, Colo. 80262. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

FACULTY POSITION IN ANATOMY FOR A NEUROANATOMIST

Rank up to associate professor, depending upon the applicant's qualifications. The position requires Ph.D. or M.D. degree, proficiency in teaching neuroanatomy and histology, and proven research productivity in neurobiology. Salary will be commensurate with appointed rank.

Please send complete curriculum vitae and the names of three individuals whom we may contact for reference to: **Dr. Anthony J. Schmidt, Chairman, Department of Anatomy, College of Health Sciences, Rush University, 600 South Paulina Street, Chicago, Illinois 60612.**

Rush University is an Equal Opportunity/Affirmative Action Employer.

DEPARTMENT OF GENETICS UNIVERSITY OF WASHINGTON, SEATTLE EUKARYOTE GENETICS

Assistant professorship, beginning in September 1981. Qualifications for this position include the ability to initiate and maintain an active research program, to supervise graduate student training, and to teach genetics. Applicants should send curriculum vitae and the names of three references by 1 September 1980 to:

Chairman, Department of Genetics, SK-50 University of Washington Seattle, Washington 98195

The University of Washington is an Equal Opportunity Employer with an Affirmative Action policy.

FACULTY POSITION IN ZOOLOGY—Assume leadership role in the development of the invertebrate area: entomology and invertebrate zoology. Curate the invertebrate collection. Assist in the coordination of the introductory zoology lecture and laboratory courses as they relate to the overall zoology program. Maintain a successful research program, grant writing activities, and participation in related professional societies. Demonstrated teaching experience in areas of invertebrate zoology and introductory level zoology courses. Demonstrated research expertise in an area of invertebrate zoology and successful grant writing experience. Doctorate in one of the disciplines of invertebrates is preferred. Salary and rank commensurate with experience and qualifications. Position to begin 18 August 1980 and will be reviewed annually. Application deadline: 4 July 1980. Send résumé, transcripts, and three letters of reference or names and addresses of references to: **Personnel Services, Northeastern Oklahoma State University, Tahlequah, Okla. 74464. Northeastern Oklahoma State University is an Equal Opportunity/Affirmative Action Employer.**

INDUSTRIAL HYGIENIST. Faculty position. Doctoral degree in industrial hygiene required; aerosol physics experience desired. Participate in nationwide epidemiologic studies on fibrotic and immunologic occupational lung diseases and develop own research interests. Applications with three letters of reference to: **Hans Weill, M.D., Pulmonary Diseases Section, Tulane University School of Medicine, 1700 Perdido Street, New Orleans, La. 70112. Deadline: 15 July 1980. Affirmative Action/Equal Opportunity Employer.**

INSTRUCTOR IN PATHOLOGY

Applications are invited for an M.D. with training in anatomic pathology and cell genetics to supervise an interdepartmental core facility in quantitative cytology. Experience with flow microfluorescence and knowledge of fluorescence-activated cell sorter and related computer technology is essential. Send curriculum vitae, bibliography, and four letters of reference to: **George M. Martin, M.D., Department of Pathology, SM-30, University of Washington, Seattle, Wash. 98195.**

Equal Opportunity/Affirmative Action Employer

INSTRUCTOR, GENERAL BIOLOGY. One-year replacement appointment beginning 20 August 1980. To assist professor in charge of audio-tutorial introductory biology courses. Duties include development, setup, and presentation of demonstration laboratory materials, supervision of student teaching assistants, and student contact in recitation and independent sessions. Requirements include master's degree and background suitable to instruction in general biology. Send résumé, transcripts, and three letters of recommendation by 15 July to: **Dr. Allen Rogerson, Chairperson, Biology Department, St. Lawrence University, Canton, N.Y. 13617. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

UNIVERSITY OF MISSOURI-ST. LOUIS FACULTY POSITION SCHOOL OF OPTOMETRY



The University of Missouri-St. Louis, School of Optometry, is seeking a faculty member, with an O.D. degree, Ph.D. degree, or both, working in the area of optics. Specific responsibilities will include teaching courses in geometric and physical optics, including the optical principles of ophthalmic instruments, and the conduction of research in the area of optics.

Candidates should provide evidence of teaching ability and scholarly research activities, the latter in the form of published articles in refereed journals and papers presented at professional meetings.

Date of appointment is negotiable; rank and salary will be commensurate with experience. Letters of application with current résumés, including names of three references, should be submitted no later than 7 July 1980 to:

Dr. Jerry L. Christensen
Dean, School of Optometry
University of Missouri-St. Louis
8001 Natural Bridge Road
St. Louis, Missouri 63121

The University of Missouri is an Equal Employment and Education Opportunity Institution.

University of Michigan Medical School. One position at **INSTRUCTOR OR ASSISTANT PROFESSOR** level, July 1980, in the Department of Anesthesiology. Board-certified or eligible anesthesiologist with Michigan licensure. Research, clinical, and didactic experience. Reply to: **Box 155, SCIENCE. Code 1100F0. A nondiscriminatory, Affirmative Action Employer.**

MICROBIOLOGIST/BIOCHEMIST. Research (75 percent) on *Brucella* antigens; teaching (25 percent). Salary and rank dependent on qualifications. Ph.D. required. Send résumé, copies (Xerox or other) of transcripts, and the names of three references to: **Dr. L. G. Adams, Department of Veterinary Pathology, Texas A & M University, College Station, Texas 77843.**

DEAN COLLEGE OF AGRICULTURE THE UNIVERSITY OF GEORGIA

The University of Georgia invites applications or nominations for the position of Dean and Coordinator of the College of Agriculture at Athens, Georgia. The College of Agriculture offers a full range of degrees in agricultural sciences at the undergraduate and graduate levels and provides state and regional research and service programs in agriculture. The dean is responsible to the president of the University of Georgia. The dean serves as the chief administrative officer of the teaching, research, and extension programs of the College of Agriculture. The dean is responsible for cooperative relations with other schools and colleges in the university, other educational institutions, commercial, agricultural enterprises, and public officials.

Qualifications: Earned doctorate; at least one degree from an accredited school or college of agriculture; significant accomplishments in teaching, research, or extension; experience with the public and commercial sectors associated with agriculture; administrative experience in agriculturally related activities; and demonstrated leadership ability.

Salary: Commensurate with background and experience.

Position available: 1 October 1980.

Deadline for applications or nominations to be received: 15 August 1980. Send letter of application, including curriculum vitae and names and addresses of three references or letters of nomination including names and complete addresses of nominees to:

Dr. W. J. Payne
Chairman, Search Committee
c/o Office of the Dean
Franklin College of Arts and Sciences
The University of Georgia
Athens, Georgia 30602

The University of Georgia is an Equal Opportunity/Affirmative Action Institution.

POSITIONS OPEN

FACULTY POSITIONS IN ANATOMY AND PHYSIOLOGY

Full-time faculty positions are available in the Departments of Anatomy and Physiology beginning in September 1980. Principal responsibilities in anatomy include lectures and laboratories in neuroanatomy, histology, and embryology. Principal responsibilities in physiology include lectures and laboratories in neuromuscular and neuroendocrine physiology. Applicants must hold the Ph.D. or masters degree in the specific discipline and have a strong commitment to teaching. Send curriculum vitae and names of three references by 4 July 1980 to:

**Director of Basic Science
Cleveland Chiropractic College
6401 Rockhill Road
Kansas City, Missouri 64131**

FACULTY POSITION

The Department of Biology at Metropolitan State College announces an opening for a full-time faculty position starting 1 September 1980. The application deadline is 15 July 1980. The completion of a doctorate is required prior to assuming the position. Applicants must have degree specialization in pathogenic microbiology and immunology at the doctoral level, with broad academic training in general microbiology and biology. Postdoctoral and/or teaching experience desired but not required. The position is a full-time teaching appointment in pathogenic microbiology, immunology, general microbiology, introductory biology for majors, and general biology for nonmajors. Academic rank and salary are commensurate with background and experience. Applicants must submit the following in advance: a letter of application stating an interest in the position and compliance with the qualifications listed above, a written curriculum vitae or résumé, official transcripts for all college work (requested, but may be submitted at the convenience of the applicant; however, they must be submitted prior to the issuance of a contract), and at least three recent letters of reference from persons in a position to evaluate the applicant's current expertise as it relates to the above requirements (requested, but may be submitted at the convenience of the applicant; however, they must be submitted prior to the issuance of a contract). Interested persons should contact: **Dr. George Becker, Chairperson, Department of Biology, Box 53, Metropolitan State College, 1006 11th Street, Denver, Colorado 80204.**

LABORATORY MANAGER

An outstanding opportunity for professional growth in managing a large laboratory with 80 employees, including 5 supervisors and 4 specialists. The individual must have a minimum of 5 years of laboratory supervisory or management experience, with a B.S. in medical technology or clinical chemistry. National certification is required. Advanced degree in a related field is preferred. Management training helpful. Send résumé, including salary history, to:

Kenneth Whisler, Ph.D.

**RUSH-
Presbyterian-St. Luke's
Medical Center
1753 West Congress Parkway
Chicago, Illinois 60612**

LIPID CHEMIST, Ph.D.—Basic research and clinical laboratory experience desired. Responsibilities include supervision of hematology/clinical chemistry laboratory and participation in research projects on lipids and lipid-associated compounds. Interact with analytical chemists, pathologist, toxicologist, molecular biologist, and practicing physicians on basic and applied research projects. Salary negotiable. Send résumé to: **Mary Wheeler, 57 Hamilton Drive, Novato, Calif. 94947; or telephone: 415-883-1397.**

POSITIONS OPEN

MICROBIAL GENETICIST/BIOCHEMIST RESEARCH ASSOCIATE

Postdoctoral position vacant for research in the genetic and biochemical aspects of nitrogen fixation. Preference will be given to the applicant in genetics and biochemistry with training that is relevant to biological nitrogen fixation. Closing date: 20 July 1980. Salary: \$14,000 to \$16,000. Forward curriculum vitae, reprints, and two letters of recommendation to: **Harold J. Evans, Laboratory for Nitrogen Fixation Research, Oregon State University, Corvallis, Ore. 97331. Oregon State University is an Equal Opportunity/Affirmative Action Employer.**

MICROBIOLOGY

Position available 1 August 1980. Assistant professor (\$22,750), M.D., Ph.D., D.D.S., or D.V.M. with experience and interest in immunochemistry and/or parasitology. More than 2 years of postdoctoral training required. The position calls for teaching microbiology to students of medicine, dentistry, and health-related professions, as well as conducting research. Interested persons should send curriculum vitae and list of publications to: **Dr. Felix Milgrom, Professor and Chairman, Department of Microbiology, State University of New York at Buffalo, 203 Sherman Hall, Buffalo, N.Y. 14214. The University is an Equal Opportunity/Affirmative Action Employer. No person in whatever relation with the University will be subject to discrimination on the basis of age, color, national origin, race, religion, or sex.**

MICROBIOLOGIST

The Department of Biochemistry, responsible for the undergraduate program in microbiology, is seeking a person with a strong background in microbiology and biochemistry. This person is expected to develop an active program of research and to participate in teaching at the undergraduate and graduate levels. The Ph.D. is a prerequisite and some pertinent postdoctoral experience is highly desirable; Canadian citizenship is not a prerequisite. Those interested in this position should send complete applications (curriculum vitae, résumé of research interests, reprints, and so forth), and arrange for three letters of recommendation to be forwarded to: **Le Directeur, Département de biochimie, Faculté des sciences et de génie, Université Laval, Québec, Québec, Canada G1K 7P4.** The position will be available as early as 1 January 1981; the successful applicant will be expected to teach in French beginning in September 1981. Salary range (assistant professor): \$23,000 to \$38,000. Application deadline date is 1 September 1980.

PHYSICAL OCEANOGRAPHY. Dalhousie University invited applications for a tenure-track assistant professorship. Applications, with curriculum vitae and names of three referees should be sent before 15 July to: **Chairman, Department of Oceanography, Dalhousie University, Halifax, Nova Scotia, Canada B3J 4H1.** Due to possible postal disruption, candidates are urged to telephone: **902-424-3557** or telex: **019-21863**, attention: **oceanography** their notification of intention to apply.

PET PHYSICIST. The Department of Neurology, Memorial Sloan-Kettering Cancer Center, seeks a qualified individual to assume overall responsibility for the physics aspects of an ongoing research and development effort in positron emission tomography. Requirements include a Ph.D. in nuclear engineering or physics (or equivalent experience) and expertise in the areas of machine physics, phantom development and mathematical modeling. Experience with DEC hardware and the RSX-11M operating system as well as a demonstrated knowledge of FORTRAN are important assets. Qualified applicants may look forward to academic appointments at Cornell University Medical College and the Sloan-Kettering Institute of Cancer Research. Competitive salary and excellent academic fringe benefits. To apply, send curriculum vitae and bibliography to: **D. A. Rottenberg, M.D., Department of Neurology, Memorial Hospital, 1275 York Avenue, New York, N.Y. 10021. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION in microbiology to study evolution of motility in prokaryotes. Project includes biochemical, behavioral, genetic, and ultrastructural analyses of motile, nonflagellated, spiral-shaped bacteria. Send curriculum vitae and names of three references to: **Dr. E. P. Greenberg, Department of Microbiology, New York State College of Agriculture and Life Sciences, Cornell University, Ithaca, N.Y. 14853. Cornell is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

Applications invited for 9-month, **tenure-track position; strong in microbiology (applied microbiology preferred) or related biomedical science.** Ph.D. required (ABD considered); competitive salary. Teaching and/or professional experience desirable. Teaching assignments may be in areas of human anatomy and physiology, microbiology, genetics, or general biology. Submit résumé and names of three references by 1 August 1980 to: **Dr. J. W. Russell, Chairman, Department of Biology, Georgia Southwestern College, Americus, Ga. 31709.**

NEUROPHYSIOLOGIST—The Departments of Physiology and Rehabilitation Medicine at Northwestern University Medical School are jointly seeking a senior neurophysiologist who can lead a strong research program in the evaluation of human sensorimotor performance and can conduct animal studies of neural mechanisms that control some aspect of sensorimotor integration, preferably using microelectrode techniques. Send inquiries and curriculum vitae to: **James C. Houk, Chairman, Department of Physiology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, Ill. 60611. Northwestern University is an Equal Opportunity/Affirmative Action Employer.**

POPULATION ECOLOGIST (FISHERIES)

Academic position (assistant research biologist, University of California) available starting mid- to late-summer 1980 for a Ph.D. experienced in working with the population dynamics of nearshore marine fishes. The successful candidate will assist the principal investigator of a multidisciplinary research program assessing environmental impacts of a southern California power plant on the local fish fauna. Applicants must have (i) quantitative experience in estimating the abundance, growth, and mortality of fish stocks; (ii) demonstrated ability in scientific writing; and (iii) some practical experience in environmental consulting. Salary to depend on experience. Send résumé, including a brief description of experience in applied research, and the names of three references, to: **Dr. E. DeMartini, 533 Stevens Avenue E-55, Solana Beach, California 92075, before 11 July 1980. The University of California is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL ASSOCIATE

A 2- to 3-year position is available for a recent Ph.D. for studies of regulation of acute phase plasma protein synthesis. Background in protein biochemistry, immunochemistry, molecular biology, or cell culture appropriate. Position available in latter half of 1980 or January 1981. Send curriculum vitae and letters of recommendation to: **Dr. Irving Kushner, Case Western Reserve University School of Medicine at Metropolitan General Hospital, Cleveland, Ohio 44109. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION Neurobiology

NIH postdoctoral traineeship available immediately for interdisciplinary training in the neurobiology of hearing. Collaboration with research scientists in the areas of neurophysiology, neurochemistry, and neuroanatomy. Prefer an individual interested in developmental studies. Send curriculum vitae, description of research interests, and three letters of recommendation to: **W. B. Warr, The Boys Town Institute for Communication Disorders in Children, 555 North 30 Street, Omaha, Neb. 68131. An Equal Opportunity Employer.**

POSITIONS are available at the **POSTDOCTORAL LEVEL** in four areas of cancer research: tumor immunology, carcinogenesis, cell biology, and biochemical pharmacology. The research emphasis for all four areas is directed toward the study of cell surface phenomena. Please send curriculum vitae and a brief statement of your professional and research goals to: **Arthur H. Hale, Department of Microbiology and Immunology, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, N.C. 27103. Telephone: 919-727-4471. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE to study regulation of biosynthesis in bacteria and simpler eukaryotes. Research will involve protein purification, gene cloning, DNA and/or RNA sequencing, or in vitro RNA-protein synthesis, depending on training and interest of the applicant. Salary equivalent to current NIH traineeship/fellowship scale. Contact: **H. E. Umbarger, Department of Biological Sciences, Purdue University, West Lafayette, Ind. 47907. Purdue University is an Equal Opportunity/Affirmative Action Employer.**

SUPERVISORY PHYSICAL SCIENTIST or SUPERVISORY OCEANOGRAPHER: The Great Lakes Environmental Research Laboratory of National Oceanic and Atmospheric Administration (NOAA) in Ann Arbor, Michigan, is seeking a senior level scientist to manage its Physical Limnology and Meteorology Group. The incumbent will direct a group of scientists, engineers, and technicians involved with research on Great Lakes water movements, temperature, waves and oscillations, and particle dynamics with theoretical and experimental approaches to improve Great Lakes prediction. In addition, the incumbent will participate in directing a Cooperative Research Program with the University of Michigan. This position is in the Competitive Service and may be filled at either the GS-15 or GS-14 level. Entrance level salaries are \$40,832 and \$34,713 per annum, respectively. Future salary adjustments are subject to the Merit Pay System. **QUALIFICATIONS:** B.S. or higher degree in oceanography, meteorology, or the physical sciences. In addition, 3 years of professional experience which has equipped the candidate with the knowledge necessary to perform the above duties. **SELECTIVE FACTORS:** applicants must have experience in a research and development environment and be capable of directing research in the hydrodynamics of ocean, lakes, and the atmosphere, and in numerical prediction and simulation methods. Additional technical information may be obtained from: Dr. Eugene J. Aubert, telephone: 313-668-2245 or FTS 378-2245. **TO APPLY:** current or former federal employees should submit SF-171 and CD-332 (Employee Appraisal). Form CD-332 may be obtained by telephoning: 303-499-1000, extension 5332 or FTS 323-6332. Applicants not employed by the federal government should submit a complete application package for "Physical Science Positions-1300." These forms may be obtained from the nearest Office of Personnel Management (OPM) which was formerly the U.S. Civil Service Commission. **ALL APPLICANTS MUST SUBMIT THEIR PUBLICATIONS RECORD.** All applications should be submitted to: NOAA/NTIA, Personnel Services Division (R566), Attention: L. Stoll, Boulder, Colorado 80303. Reference Vacancy Number NOAA/ERL 80-176. Applications must be received by 15 August 1980 to receive consideration. *An Equal Opportunity Employer.*

AUSTRALIA
New South Wales Government
PREMIER'S DEPARTMENT

The Australian Museum
(Two Positions)

Curator or Assistant Curator of Birds
Curator or Assistant Curator of Mammals

Position Number AUS 80/11

SALARY:

Assistant curator: A\$11,812 to A\$17,896.

Curator: A\$18,706 to A\$21,207.

Subject to certain conditions, successful applicants may be eligible for reclassification as research scientist/senior research scientist/principal research scientist, with progression to A\$27,425.

QUALIFICATIONS: University degree in zoology with research experience in an appropriate field. Applicants should have some knowledge of modern museum curatorial practice. Research interests should be orientated towards work which involves the use of the collections, with research on systematics (especially at supraspecific levels), evolutionary biology and biogeography preferred. A wide knowledge of mammalian or avian biology is essential and is more important than a thorough knowledge of Australian mammals or birds.

DUTIES: To curate the mammal and bird collections respectively and to be responsible for the answering of public and professional scientific enquiries. To participate in the museum's display and educational programmes in the appointee's field of study, and to carry out an active programme of research in some field of Australian mammalogy or ornithology.

GENERAL: The Australian Museum has a staff of more than 160 with 17 scientific departments covering most systematic groups of animals, animal ecology, mineralogy and petrology, paleontology, and anthropology. Scientific staff numbers 55. Field research is emphasised. The curatorial post in ornithology is vacant and a new appointee would be expected to take up the appointment as soon as possible. The post in mammalogy will become vacant with the retirement of the present curator on 31 October 1980.

CONDITIONS: Subject to certain conditions, the successful applicant will be eligible for:

- Payment of fares to Sydney,
- Financial assistance towards cost of removal expenses, and
- Financial assistance towards initial accommodation expenses.

ENQUIRIES: Telephone: (02) 3398111 (Dr. Cogger).

Applications close 25 July 1980.

The Director
Australian Museum
P.O. Box A285, Sydney South, N.S.W. 2000
Australia

Applications are invited from both males and females.

BIOGEN S.A.

a young company in basic and applied research in the field of molecular biology and microbiology with the objective of developing and commercializing products in such fields as health care, chemicals and agriculture, is inviting applications for its

**LABORATORY IN GENEVA,
SWITZERLAND**

—for molecular biologists with experience in recombinant DNA research and nucleic acid biochemistry

—for microbiologists with experience in industrial bacteriology and fermentation up to the pilot plant level

Salary (including fringe benefits) will be competitive and in accordance with experience and ability. Send curriculum vitae (with a description of previous experience and a list of publications) to BIOGEN S.A. 3 route de Troinex, 1227 GENEVA, Switzerland.

CSIRO
RESEARCH SCIENTIST/SENIOR RESEARCH SCIENTIST
DIVISION OF MATHEMATICS AND STATISTICS
CANBERRA, A.C.T.
AUSTRALIA

CSIRO has a broad charter for research into primary and secondary industry areas. The Organization has approximately 7400 employees, 2500 of whom are research and professional scientists, located in divisions and sections throughout Australia.

FIELD. APPLIED MATHEMATICS.

GENERAL. The division has a staff of 101, of whom 70 are professional scientists. Staff are located at centres and laboratories in capital cities in every state and in some major country centres. The successful applicant will be based in either Melbourne or Canberra.

The division's research in mathematics and statistics includes various aspects of fluid mechanics, statistical mechanics, numerical analysis, optimization, operations research, distribution theory, multivariate analysis, stochastic processes, geostatistics, statistical inference, and experimental design. Application of this research to agricultural, biological, environmental, and industrial investigations currently includes modelling of ecological, physical, agricultural and climatological systems, industrial processes, and mineral surveys.

Scientists of the division advise on the mathematical, numerical and statistical analysis of research projects undertaken by other divisions of CSIRO.

DUTIES. To supplement the consulting and research expertise of the mathematics group.

The group has specific research interests in alternative energy systems, fluid mechanics, soil physics, theoretical physics in biology, applied stochastic processes, statistical mechanics, and numerical analysis.

QUALIFICATIONS. A Ph.D. degree or equivalent qualifications with demonstrable research ability and capacity to do consulting.

SALARY. Research scientist/senior research scientist: A\$16,632 to A\$24,162 per annum.

TENURE. Indefinite with superannuation.

APPLICATION. In writing and stating full personal and professional details, the names of at least two referees and quoting reference Number A3495 should reach:

The Chief
CSIRO
Division of Mathematics and Statistics
P.O. Box 1965
CANBERRA CITY, A.C.T. 2601
AUSTRALIA

by 4 July 1980.

POSITIONS OPEN

POSTDOCTORAL POSITION

Regulation of prokaryotic DNA topoisomerases. Strong background in enzyme purification and assay required.

Box 150, SCIENCE

POSTDOCTORAL POSITION in crystallographic computing. Work on aspects of developing machine independent software. Experience in FORTRAN coding and either small or large molecule single crystal diffraction methods required. Contact: **Professor J. M. Stewart, Chemistry Department, University of Maryland, College Park, Md. 20742. Affirmative Action/Equal Opportunity Employer.**

FOUR POSTDOCTORAL POSITIONS

Available 1 July 1980; \$14,000 per year; in micro-emulsions and foams in oil recovery, coal dispersions in oil and aqueous media, and surface properties of polymers as ophthalmic fluids. Write to: **Professor D. O. Shah, Chemical Engineering Department, University of Florida, Gainesville, Fla. 32611.**

POSTDOCTORAL POSITION—In Division of Dermatology, School of Medicine, Duke Medical Center, for candidate with background in immunology and/or biochemistry with interest in cell culture, lymphokine purification, and radioimmunoassay techniques. Reply to: **Brian Jegasothy, M.D., Box 3137, Duke Medical Center, Durham, N.C. 27710 or telephone: 919-684-5639. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION in receptor-mediated endocytosis/vitamin transport oligosaccharide structure determination for recent Ph.D. beginning 1 September 1980. Send résumé and three references to: **Dr. Harold B. White, Chemistry Department, University of Delaware, Newark, Del. 19711. The University of Delaware is an Equal Opportunity Employer which encourages applications from qualified minority groups and women.**

POSTDOCTORAL RESEARCH ASSOCIATE. To study the stereochemistry and catalytic mechanism of glutathione-dependent enzymes. Experience in organic synthesis desirable. Salary to \$14,000. Send résumé and references to: **Dr. Donald J. Creighton, Department of Chemistry, University of Maryland, Baltimore County, 5401 Wilkens Avenue, Catonsville, Maryland 21228.**

POSTDOCTORAL RESEARCH POSITION available to study the mechanism for hormonal regulation of glutamine synthetase and amino acid metabolism in cultured 3T3 adipocytes [see R. E. Miller *et al.* *PNAS* 75, 1418 (1978) and *JBC* (June 1980), p. 255]. Recent Ph.D. in biochemistry, molecular biology, or related discipline required. Salary to \$15,000. Send curriculum vitae and three references to: **Dr. Richard E. Miller, Metabolism Section, Department of Medicine, Case Western Reserve University, Veterans Administration Hospital, 10701 East Boulevard, Cleveland, Ohio 44106.**

RESEARCH SCIENTISTS— BIOLOGICAL SCIENCES

The Life Sciences Division of IIT Research Institute, a not-for-profit, Chicago-based research organization, has several staff positions for biologists. Requisite are Ph.D. in physiology, toxicology, or experimental pathology. Preference will be given to candidates with postdoctoral research experience in chemical carcinogenesis, pharmacology, or an interest in long-term in vivo toxicity and carcinogen bioassay studies. Opportunity is available to develop independent research projects in own field of expertise. Salary commensurate with experience and qualifications.

Please submit résumés, including salary history, to:

**L. Amft
Professional Staffing
IIT RESEARCH INSTITUTE
10 West 35 Street
Chicago, Ill. 60616**

IITRI is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and members of minority groups.

POSITIONS OPEN

Université de Montréal Faculté des arts et des sciences Institut d'histoire et de sociopolitique des sciences PROFESSEUR À PLEIN TEMPS

Fonctions: Enseignement (en langue française) aux 2e et 3e cycles, recherche, encadrement d'étudiants gradués.

Exigences: Ph.D. Expérience dans l'enseignement supérieur et la recherche. Spécialisation en politique des sciences et de la technologie au Canada et au Québec, ou en administration de la recherche ou en économie de la recherche et du développement.

Traitement: Selon les normes de la convention collective en vigueur.

Date d'entrée en fonction: Le 1er janvier ou le 1er juin 1981.

Date de clôture des candidatures: Le 1er septembre 1980.

Les candidats sont priés d'envoyer leur curriculum vitae à:

**Brigitte Schroeder-Gudehus
Directeur
Institut d'histoire et
de sociopolitique des sciences
Université de Montréal
C.P. 6128, succursale A
Montréal, Québec, Canada H3C 3J7**

A newly established Division of Higher Cortical Function in the Neurology Department at Temple invites applications from recent Ph.D.'s and cognitive psychology/psycholinguistics who wish **postdoctoral training in neuropsychology** including aphasia-acquired dyslexia and other cognitive disorders. Appointments are for a 9-month period starting September 1980. Stipends are competitive. Send curriculum vitae and three references to: **Dr. E. Saffran, Neurology Department, Temple University Hospital, 3401 North Broad Street, Philadelphia, Pa. 19140. Temple is an Affirmative Action Employer.**

PROTEIN CHEMIST—Interested in protein-protein and protein-DNA interactions, as a junior member of a small, active research team studying chromatin structure-function relationships at a modern, well-equipped, basic research institute in a pleasant suburban environment. Position available 1 September 1980 in the laboratory of Dr. A. Zweidler. Send résumé and salary requirements to: **Dr. A. Zweidler, c/o Personnel Office, Institute for Cancer Research, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, Pa. 19111. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSISTANT OR ASSOCIATE PROFESSOR. Departments of Physiology and Chemical Engineering, University of Arizona. A research appointment in physiology and chemical engineering is available in the area of microcirculatory modeling in the context of an ongoing research program in microcirculatory physiology. The candidate will be responsible for development of a flow mechanics and laboratory devoted to theoretical and experimental studies. He/she will be expected to collaborate in the modeling program currently under way as well as to develop a research program in related areas of interest. Applicants should have a strong background in applied mathematics with a Ph.D. in an appropriate discipline. Candidates with experience in microcirculatory research will be given preference. Salary commensurate with qualifications. Please send curriculum vitae and the names of three references to: **Dr. Joseph F. Gross, Department of Chemical Engineering, University of Arizona, Tucson, Arizona 85721. The University of Arizona is an Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE—A position is available immediately for a Ph.D. to join group studying cellular gene expression and DNA sequence rearrangements in virally induced tumors. Studies will involve extensive use of recombinant DNA technology. Research will be conducted in the laboratory of Dr. Susan M. Astrin at the Institute for Cancer Research, in collaboration with other groups and institutions. Experience in molecular cloning techniques highly desirable. Salary range is \$14,000 to \$18,000. Send curriculum vitae and the names of three references to: **Dr. Susan M. Astrin, c/o Mary T. Dixon, Personnel Manager, The Institute for Cancer Research, 7701 Burholme Avenue, Philadelphia, Pa. 19111. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

The Department of Radiology, Medical University of South Carolina (MUSC), is seeking qualified applicants for a position in **RADIATION BIOLOGY** at the **instructor or assistant professor** level. The qualifications are a Ph.D. in a biological, biochemical, or biophysical science with a molecular orientation and some experience in radiation effects. The person chosen for the position will be engaged primarily in basic and applied research relating to cancer therapy and other associated areas. Some teaching responsibilities for residents in radiology and other fields will be required. The individual chosen for this position will also be responsible for development of the radiation biology section for the Basic Science Division.

The Department of Radiology of MUSC has clinical divisions of Diagnostic and Therapeutic Radiology and Nuclear Medicine and a Basic Radiation Sciences Division includes Physics, Biology, Engineering, and Radiation Safety. Some laboratory space and equipment for biology is available. Present research in this section is development of animal models for radiation and hyperthermia.

Interested persons should contact:

**J. O. Fenn, Ph.D., Director
Division of Basic Radiation Sciences
Department of Radiology
Medical University of South Carolina
171 Ashley Avenue
Charleston, South Carolina 29403
Telephone: 803-792-3271**

The Medical University of South Carolina is an Equal Opportunity Employer, M/F/H.

RESEARCH ASSOCIATE. Postdoctoral position in microbiology or microbial physiology. Involves research in the physiology of nitrogen fixation and use of the acetylene reduction technique as well as preparation of publications and research proposals. Salary is commensurate with experience. Position is for 1 year, 1 July 1980 to 1 July 1981, and is subject to renewal. Send curriculum vitae and three references to: **N. Booker, Director of Personnel, Box PP, Virginia State University, Petersburg, Va. 23803.**

RESEARCH ASSOCIATE

Rush-Presbyterian-St. Luke's is a nationally known, leading medical center located in Chicago. Currently, we have a position available for a research associate to study the roles of prostaglandins in modulating platelet-vessel wall interaction. Doctorate required, plus a background in biochemistry, immunology, or pharmacology desired. We offer a competitive salary and a full range of benefits. Send résumé to:

**Dr. Kenneth K. Wu
Coagulation and Thrombosis Unit**

**RUSH-
Presbyterian-St. Luke's
Medical Center**

**1753 West Congress Parkway
Chicago, Illinois 60612**

RESEARCH PHYSICIST

The Department of Physics of the University of California, Irvine, offers a position for an **experimental research physicist** with at least 5 years of experience in pulse power/plasma physics to work on new accelerator concepts; 1-year appointment can be extended if funds available. Position available 1 July 1980. Send résumé, bibliography, and names of three professional references to: **Professor Norman Rostoker, Department of Physics, University of California, Irvine, Calif. 92717. University of California is an Affirmative Action/Equal Opportunity Employer.**

SCIENCES

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Senior level position requiring PhD plus two years of post-doctoral experience. Qualified candidate should be a community ecologist with terrestrial background and field experience throughout North America.

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Senior level position requiring PhD in Biology, Zoology or Ecology plus two years experience. Qualified candidate will have an interdisciplinary background including skills in computer usage. Knowledge of community ecology and good math background essential.

HDR is involved in environmental assessment and research nationwide on a variety of challenging energy, defense, and transportation projects. We offer excellent company benefits including dental insurance and competitive starting salary. If interested, please send resume with salary history and requirements in confidence to:

HDR Sciences

804 Anacapa Street
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Attn: Personnel Director SM

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RESEARCH SCIENTIST

The Pharmaceutical Research and Development Division of the Upjohn Company has a senior research position in the Hypersensitivity Diseases Research Unit.

The successful candidate should be an established scientist with experience in drug development, and will be responsible for a research program which applies animal models to the identification and development of therapeutics useful in immunoinflammatory diseases.

Candidates must have a Ph.D., D.V.M., or M.D. Degree with a minimum of 4 years' of post-doctoral or comparable experience in the areas of immunopharmacology and/or immunopathology, and a demonstrated ability to do independent research.

Send resume in confidence to:

Kent S. Morgan
The Upjohn Company
7171 Portage Rd.
Kalamazoo, MI 49001

Upjohn

DEAN, SCIENCES AND HUMANITIES BALL STATE UNIVERSITY

Ball State University invites applications and nominations for the position of Dean of the College of Sciences and Humanities. The dean is currently chief academic and administrative officer of a faculty of over 300 persons organized now in the following departments and centers: Anthropology, Biology, Chemistry, Criminal Justice & Corrections, English, Foreign Languages, Geography & Geology, History, Journalism, Mathematical Sciences, Natural Resources, Philosophy, Physics & Astronomy, Physiology & Health Science, Political Science, Psychological Science, Radio & Television, Social Work, Sociology, Speech & Theatre, and Speech Pathology & Audiology. The college offers programs at the associate, bachelor, master, specialist, and doctoral levels.

Applicants must have an earned Ph.D. and a proven record of scholarship in one of the disciplines of the humanities, sciences or social sciences and nine years experience in higher education combining both teaching and academic administration. Applicants should have demonstrated ability for working in a complex organization, for exercising leadership and for delegating responsibility.

Nominations must be postmarked no later than Monday, June 16, 1980. Completed applications must be postmarked no later than Monday, July 7, 1980.

Nominations and applications should be addressed to:

Dr. Paul Parkison, Chairman
Search and Screen Committee for
Dean, College of Sciences and Humanities
WB 307, Ball State University
Muncie, Indiana 47306

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POSITIONS OPEN

RESEARCH ASSOCIATE Ph.D. IN PHYSICS

To work on a project to measure the physical properties of artificial membranes that contain uniquely purified carrier and/or channel proteins. These measurements will include: conductance, capacitance, transient kinetics, and noise spectrum analysis. Person must have some familiarity with noise analysis and computers. The laboratory already contains all the hardware and software that are needed for such study.

Please send résumé and three letters of reference to:

Dr. Adil E. Shamoo
Professor and Chairperson
Department of Biological Chemistry
University of Maryland School of Medicine
660 West Redwood Street
Baltimore, Maryland 21201

Equal Opportunity/Affirmative Action Employer

The U.S. Department of Agriculture (USDA), Science and Education Administration (SEA), is recruiting for a **RESEARCH PHARMACOLOGIST**, GS-11, \$20,611 per year, at the Richard B. Russell Agricultural Research Center, Athens, Georgia. The incumbent will investigate pharmacological and toxicological properties of mycotoxins, phytoalexins, glycoalkaloids, nitrosamines, and other broad classes of compounds of agricultural importance. A strong background in biochemistry and/or toxicology is desired. Submit form SF-171 and transcripts to: **Joanne Ward, Personnel Assistant, USDA-SEA-Russell Research Center, P.O. Box 5677, Athens, Ga. 30613.** You will then be furnished with additional application requirements. Deadline for applications is 18 July 1980.

Position advertised to establish a pool of qualified applicants. **Potential full-time RESEARCH POSITION** with primary responsibility for developing and managing pending receptor and membrane function research project. Requires earned doctorate and substantial experience in pharmacology. Title and salary commensurate with credentials. Possible adjunct faculty appointment (no compensation) with the Departments of Pathology and Pharmacology. Send curriculum vitae and five references to: **Samuel W. French, M.D., Vice Chairman, Department of Pathology, VA Medical Center, 150 Muir Road, Martinez, Calif. 94553.** The University of California is an *Affirmative Action/Equal Opportunity Employer*. Applications received through 31 July 1980.

RESEARCH SCIENTIST: Biochemical Engineering Section, Biomedical Engineering Laboratory, American Red Cross Blood Services, Bethesda, Md. Available 1 July 1980. M.S., Ph.D., or Sc.D. in biomedical, chemical, or mechanical engineering with four or more years of relevant work experience. Primary goal of section is to improve collection, preparation, and storage of blood and blood components. Current activities relate to membrane plasmapheresis, human leukocyte interferon production, cryopreservation of platelets, leukocytes and separation of plasma proteins. Future activities include studies of blood-materials interactions and blood substitutes. Collaboration with academic, industrial, and government groups is encouraged. Salary: \$23,700 to \$35,500, commensurate with experience. Send résumé to: **Ruth Straub, 18th and D Streets, NW, Washington, D.C. 20006.** *Equal Opportunity Employer, M/F.*

SPECIALIST

The Laboratory of Nuclear Medicine and Radiation Biology is seeking a doctorate in the field of environmental sciences with an interest in energy-related problems and training in engineering or public health, plus 2 years of experience in managing multidisciplinary environmental assessments. Candidate must have strong analytical skills and be capable of conducting academic-quality research in his/her area of specialization. The position involves preparation of annual health and environmental effects assessment for Solar Thermal Energy Systems and assist in definition of new research topics related to STES's. Applicants should submit curriculum vitae and names of three references to: **Laboratory Personnel Officer, Laboratory of Nuclear Medicine and Radiation Biology, 900 Veteran Avenue, Los Angeles, California 90024.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

RESEARCH AND DEVELOPMENT CHEMIST

The Adolph Coors Company, the nation's fifth largest brewer, has an immediate opening for a malting R & D chemist at its Golden, Colorado, facility.

Candidates for the position should have a B.S. degree in plant biochemistry or biochemistry/biology. A master's degree or Ph.D. is preferred. Experience should include a minimum of 4 years of working with seed physiology or malting. The selected individual will have the ability to work under general supervision.

Responsibilities will include:

- Planning and coordinating scientific experiments,
- Coordination of R & D projects with Production and Engineering Departments,
- Providing technical guidance to less senior R & D personnel, and
- Preparation of reports and proposals regarding R & D projects.

For excellent salary and benefits, send résumé, including salary history, to:

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RESEARCH SCIENTIST/ENGINEER

Massachusetts Institute of Technology (MIT), Nuclear Reactor Laboratory, is seeking a medical physicist, medical engineer, or biophysicist, with knowledge relevant to use of reactors in biomedical research, isotope applications in nuclear medicine, and basic engineering and instrumentation experience in nuclear radiation applications. Ability to relate to many different persons working on diverse subjects in the interdisciplinary medical and scientific community is a main requirement.

Applicant will be expected to develop a research program in biomedical uses of the MIT research reactor. Ph.D. required; broad background as a generalist preferred. This is a research appointment at a level commensurate with the qualifications of the appointee.

Please submit résumé to: **Professor Otto K. Harling, Director, Nuclear Reactor Laboratory, c/o MIT Personnel Office, 77 Massachusetts Avenue, Cambridge, Mass. 02139.** **Attention: Job Number R80-122.** *MIT is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH SCIENTIST: Ph.D. position open 1 July. Immunologist to study effects of drugs on human lymphocyte function. Expertise in molecular biology methodology/lymphocyte functionality testing. Emory University appointment negotiable. Starting salary: \$20,500. Send résumé and references to: **Dr. Arthur Falek, Emory University Department of Psychiatry, P.O. Box AF, Atlanta, Ga. 30322.** *An Equal Opportunity/Affirmative Action Employer.*

SCIENCE WRITER, BIOMEDICAL. New York City-based national health agency seeks writer with scientific training. Reports, brochures, correspondence, and translation of technical material to lay language. *Equal Opportunity Employer.* Send curriculum vitae to: **Box 151, SCIENCE.**

SCIENTIFIC ASSISTANT

Washington, D.C., trade association seeks B.S. or M.S. in biology and/or biochemistry, with excellent writing and oral communication skills and ability to understand and critique complex literature on toxicology and safety evaluation. Opportunity for continued education on part-time basis. Submit résumé, college transcripts, and brief writing sample to:

Box 156, SCIENCE

POSITIONS OPEN

SURGICAL PATHOLOGIST (assistant or associate professor level)—Opening available 1 July 1981 at the University of Massachusetts Medical Center. Required: AP boards. Preference will be given to applicants with competence in a special field (especially cytology, oncology, hematopathology), demonstrated excellence in teaching, research interests, and/or previous training in clinical pathology or internal medicine. *Applications from women and minorities will be especially welcome.* Write to: **Dr. G. Majno, Department of Pathology, UNIVERSITY OF MASSACHUSETTS MEDICAL CENTER, 55 Lake Avenue North, Worcester, Mass. 01605.** *An Affirmative Action/Equal Opportunity Employer.*

TECHNICAL EDITOR—Growing chemical research firm in central Oregon is seeking a full-time editor for technical reports and proposals. Requirements: minimum of 5 years of experience in technical editing, strong technical background, and excellent English skills. Salary commensurate with experience. *An Equal Opportunity Employer.* Send résumé to: **Sharon Maier, 64550 Research Road, Bend, Oregon 97701.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP funded by MRC of Canada available immediately for 2 years, for Ph.D. biochemist to participate in research on molecular properties of mammary glucocorticoid hormone receptors. Starting salary: \$13,000 per year. Send curriculum vitae and names of two referees to: **Dr. G. Shyamala, Lady Davis Institute for Medical Research, 3755 Cote St. Catherine Road, Montreal, Québec, Canada H3T 1E2.**

POSTDOCTORAL FELLOWSHIP available starting 1 August 1980 for studies on the molecular biology of defined mammalian DNA sequences and their associations with chromatin proteins with emphasis on primate (human and monkey) genomes. Also studies on mode of action and properties of mammalian site-specific endonucleases. Program entails DNA sequencing, cloning, many aspects of nucleic acid and chromatin protein technology, and nucleic acid enzymology. Send inquiries, curriculum vitae, and letters of recommendation to: **Dr. J. Maio, Department of Cell Biology, Albert Einstein College of Medicine, Bronx, N.Y. 10461.**

NIH-SUPPORTED POSTDOCTORAL FELLOWSHIP IN COMMUNICATION BIOPHYSICS

Fellows will conduct research in well-equipped laboratories, in collaboration with senior investigators in the fields of psychoacoustics, audiology, or communication engineering. Current research projects include perception of complex auditory patterns, frequency resolution by normal and impaired listeners, computer-based speech training aids for the deaf, frequency-lowering hearing aids, and individual differences in auditory capabilities. Contact: **C. S. Watson, Boys Town Institute for Communication Disorders in Children, 555 North 30 Street, Omaha, Neb. 68131.** *An Equal Opportunity/Affirmative Action Employer.*

MARKET PLACE

WANTED—Used Beckman Model 890 B or C Sequenator.

Attention: **Richard Harkins, Ph.D.**
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460 Point San Bruno Boulevard
South San Francisco, Calif. 94080
Telephone: 415-952-0123

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worldwide. Following is a brief view of recent FACS advances:

Detection of Neoplastic Cells

Use of specific antibodies to tumor cell-surface antigens, in conjunction with FACS analysis, represents a promising new approach to phenotyping the surface of neoplastic cells and differentiating them from normal cells in mixed populations. Lymphocytes from peripheral blood have been stained with fluorescein-conjugated anti-light chain reagents and analyzed with FACS for the presence of monoclonal neoplastic B cells.

Cell Surface Changes During T-Cell Maturation

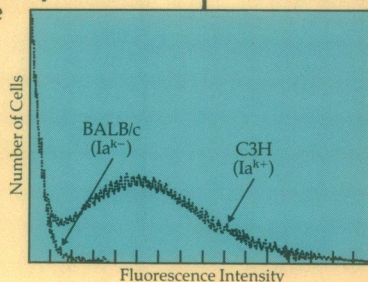
FACS examination of Lyt-1 and 2 expression on murine T cells has been facilitated by use of monoclonal antibodies to Thy-1 and Lyt antigens. These antibodies have been conjugated with

fluorescein and used in quantitative cell-by-cell FACS assays of determinant expression. Data are indicative of several surface changes during T-cell maturation.

Sorting of Bone Marrow Cells

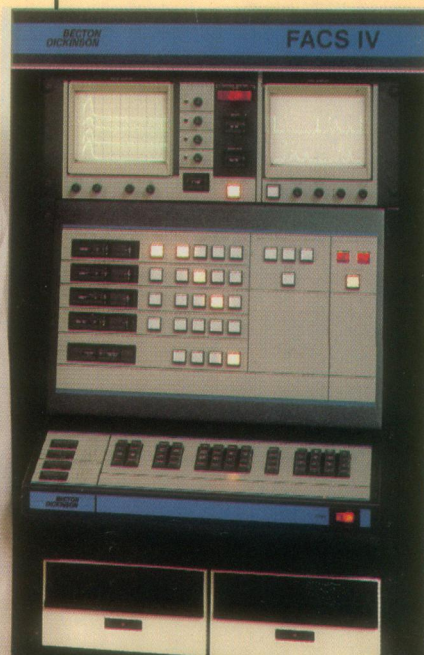
Mouse bone marrow cells have been analyzed and sorted for biochemical studies of cellular differentiation in the hemopoietic system. Multi-parameter sorting—based on autofluorescence, 90° and forward angle light scatter—has provided marked enrichment of neutrophils (97%), lymphocytes (95%) and immature myeloid cells (89%).

For additional information, including an extensive bibliography, call or write Becton Dickinson FACS Systems.



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Flight cancelled.



When the stars come out in Mexico, and other parts of Latin America, hordes of vampire bats do also. These bats (*Desmodus rotundus*) have been attacking cattle, bleeding them and acting as dangerous vectors of paralytic rabies.

The cattle ranchers, suffering losses of \$350 million a year in meat and milk production, saw their livelihoods at stake. And while Count Dracula may have been kept in his place by a wooden stake, the ranchers needed a better solution.

The U.S. Agency for International Development (AID) funded U.S. Fish and Wildlife Service scientists who devised a control method. An anticoagulant solution, diphenadione, based on a Kodak intermediate, was developed by a chemical firm. It is smeared on vampire bats after they are trapped in nets. The bats, grooming each other, ingest it and die as they live—by bleeding. The purpose is not to eradicate the species, but to control them. Since other bat species do not associate with vampire bats, this method selectively controls only *Desmodus rotundus*, and only in those areas where they pose a threat to domestic livestock and human needs.

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