about the physiological functions of carbonic anhydrase has been deduced from experiments in which its activity was reduced or abolished by specific inhibitors such as acetazolamide. The physiological significance of carbonic anhydrase differs somewhat in different tissues, but the general statement can be made that carbonic anhydrase is important in any situation where the formation or dissolution of HCO_3^- is a potentially ratelimiting step in the transfer of HCO_3^- (and often of other ions as well) across cell membranes.

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Books Received

Achievements in Residential Services for Persons with Disabilities. Toward Excellence. Papers from a conference, Pomona, Calif., Dec. 1977. Tony Apolloni, Joanna Cappuccilli, and Thomas P. Cooke, Eds. University Park Press, Baltimore, 1980. xviii, 206 pp., illus. Paper, \$14.95.

Advances in Biochemical Engineering. Vol. 15. A. Fiechter, Ed. Springer-Verlag, New York, 1980. vi, 130 pp., illus. \$46.50.

Alcoholism and Affective Disorders. Clinical, Genetic, and Biochemical Studies. Donald W. Goodwin and Carlton K. Erickson, Eds. SP Medical and Scientific Books (Spectrum), New York, 1979. vi, 298 pp., illus. \$25.

Algebra and Trigonometry. Walter Fleming and Dale Varberg. Prentice-Hall, Englewood Cliffs, N.J., 1980. xvi, 522 pp., illus. + appendix. \$17.95.

Algebraic Structure of Knot Modules. Jerome P. Levine. Springer-Verlag, New York, 1980. xii, 104 pp. Paper, \$9.80.

Ambulatory Gynecologic Surgery. Purvis L. Martin. PSG Publishing Company, Littleton, Mass., 1979. xiv, 382 pp., illus. \$34.

American Energy Choices before the Year 2000. Papers from a conference, New York, Jan. 1980. Elihu Bergman, Hans A. Bethe, and Robert E. Marshak, Eds. Lexington (Heath), Lexington, Mass., 1980. viii, 152 pp., illus. \$15.95.

Analysis. Part 2, Integration, Distributions, Holomorphic Functions, Tensor and Harmonic Analysis. Krzysztof Maurin. Translated from the Polish edition (Warsaw, 1971-3). Reidel, Boston, 1979 (distributor, Kluwer Boston, Hingham, Mass.). xviii, 830 pp. \$76.30.

An Analysis of Radiographic Quality. Lab Manual and Workbook, Daniel P. Donohue. University Park Press, Baltimore, 1980. Variously paged, illus. Paper, \$12.95. The Analysis of Social Skill. Proceedings of

The Analysis of Social Skill. Proceedings of a symposium, Leuven, Belgium, June 1979. W. T. Singleton, P. Spurgeon and R. B. Stammers, Eds. Plenum, New York, 1980. viii, 360 pp., illus. \$35.

Analytical Atomic Absorption Spectroscopy. Selected Methods. Jon C. Van Loon. Academic Press, New York, 1980. xii, 338 pp., illus. \$35.

Applied Physiological Mechanics. Dhanjoo

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N. Ghista, Ed. Harwood Academic Publishers, New York, 1980. xxvi, 902 pp., illus. \$117.50. Biomedical Engineering and Computation Series, vol. 1.

Approximation Methods for Navier-Stokes Problems. Proceedings of a symposium, Paderborn, Germany, Sept. 1979. R. Rautmann, Ed. Springer-Verlag, New York, 1980. xvi, 582 pp., illus. Paper, \$34.30. Lecture Notes in Mathematics, vol. 771.

Archaeological Chemistry. A Sourcebook on the Applications of Chemistry to Archaeology. Zvi Goffer. Wiley-Interscience, New York, 1980. xviii, 376 pp., illus. \$24.95. Chemical Analysis, vol. 55.

Archaeological Perspectives on Ethnicity in America. Afro-American and Asian American Culture History. Robert L. Schuyler, Ed. Baywood, Farmingdale, N.Y., 1980. x, 148 pp., illus. Paper, \$6.

Arithmetic on Elliptic Curves with Complex Multiplication. Benedict H. Gross with an appendix by B. Mazur. Springer-Verlag, New York, 1980. vi, 96 pp. Paper, \$9.80. Lecture Notes in Mathematics, vol. 776.

Aromatic Amino Acid Hydroxylases and Mental Disease. M. B. H. Youdim, Ed. Wiley-Interscience, New York, 1980. x, 390 pp., illus, \$63.25.

Artful Scribbles. The Significance of Children's Drawings. Howard Gardner. Basic Books, New York, 1980. xiv, 280 pp., illus. \$15.

Attachment and Loss. Vol. 3, Loss: Sadness and Depression. John Bowlby. Basic Books, New York, 1980. xvi, 472 pp. \$22.50.

The Audubon Society Book of Marine Wildlife. Les Line and George Reiger. Abrams, New York, 1980. 240 pp., illus. \$45. A Chanticleer Press Edition.

Augustine to Galileo. Vol. 1, Science in the Middle Ages, 5th to 13th Centuries; Vol. 2, Science in the Later Middle Ages and Early Modern Times, 13th to 17th Centuries. A. C. Crombie. Harvard University Press, Cambridge, Mass., 1980. 290 pp. + plates; 374 pp. + plates. \$18.50. Reprint in one volume of 1961 edition.

The Basic Principles of Insect Population Suppression and Management. E. F. Knipling. U.S. Department of Agriculture, Washington, D.C., 1979 (available from the Superintendent of Documents, Washington, D.C.). x, 660 pp. Paper, \$10. Agriculture Handbook No. 512.

The Bias of Science. Brian Martin. Society for Social Responsibility, Canberra, Australia, 1979 (U.S. distributor, ISBS, Forest Grove, Ore.). 100 pp. Paper, \$6.

The Biochemistry of Inorganic Polyphosphates. I. S. Kulaev. Translated from the Russian edition (1975) by R. F. Brookes. Wiley-Interscience, New York, 1980. xiv, 256 pp., illus. \$48.95.

Biological Rhythms and Their Central Mechanism. Papers from a symposium, 1978. Masami Suda, Osamu Hayaishi, and Hachiro Nakagawa, Eds. Elsevier/North-Holland, New York, 1979. xvi, 454 pp., illus. \$83.

Biological Science. William T. Keeton. Norton, New York, ed. 2, 1980. xviii, 1080 pp., illus. + appendix. \$19.95. Study Guide. Carol Hardy McFadden, viii, 232 pp., illus. Paper, \$4.95.

Biology of Communication. D. Brian Lewis and D. Michael Gower. Halsted (Wiley), New York, 1980. viii, 240 pp., illus. \$27.95. Tertiary Level Biology.

The Biology of Crop Productivity. Peter S. Carlson, Ed. Academic Press, New York, 1980. xviii, 472 pp., illus. \$39.50.

Biology of the Gene. Louis Levine. Mosby, St. Louis, ed. 3, 1980. xviii, 542 pp., illus. Paper, \$16.95.

Black Rage. William H. Grier and Price M. Cobbs. Basic Books, New York, 1980. x, 214 pp. Paper, \$3.95. Reprint of the 1968 edition.

Breast Cancer. A Practical Guide to Diagnosis and Treatment. Papers from a conference. Louis Venet, Ed. SP Medical and Scientific Books (Spectrum), New York, 1979. xiv, 182 pp., illus. \$20.

Breeding Plants Resistant to Insects. Fowden G. Maxwell and Peter R. Jennings, Eds. Wiley-Interscience, New York, 1980. xx, 684 pp., illus. \$24.95. Environmental Science and Technology.

Brownian Motion. T. Hida. Translated from the Japanese edition (Tokyo, 1975) by the author and T. P. Speed. Springer-Verlag, New York, 1980. xvi, 328 pp. \$34. Applications of Mathematics, 11.

The Bruce Collection of Eskimo Material Culture from Kotzebue Sound, Alaska. James W. Vanstone. Field Museum of Natural History, Chicago, 1980. viii, 144 pp., illus. Paper, \$14.50. Fieldiana Anthropology, New Series, No. 1.

Burger's Medicinal Chemistry. Part 1, The Basis of Medicinal Chemistry. Manfred E. Wolff, Ed. Wiley-Interscience, New York, ed. 4, 1980. xii, 498 pp., illus. \$29.50.

Carbon Monoxide. World Health Organization, Geneva, 1979 (U.S. distributor, WHO Publication Centre USA, Albany, N.Y.). 126 pp., illus. Paper, \$6. Environmental Health Criteria 13.

Cephalic Neural Crest and Placodes. C. D. A. Verwoerd and C. G. van Oostrom. Springer-Verlag, New York, 1979. vi, 78 pp., illus. Paper, \$26.40. Advances in Anatomy, Embryology and Cell Biology, vol. 58.

Charge-Coupled Devices. D. F. Barbe, Ed. Springer-Verlag, New York, 1980. xii, 182 pp., illus. \$38.80. Topics in Applied Physics, vol. 38.

CHARM. Proceedings of a workshop, Ajaccio, Corsica, Nov. 1979. European Space Agency, Paris, 1980. 220 pp., illus. Paper, 80 F. ESA SP-150.

Chemical Plant and Its Operation. Including Safety and Health Aspects. T. M. Cook and D. J. Cullen. Pergamon, New York, ed. 2, 1980. x, 174 pp., illus. Cloth, \$16.50; paper, \$7.95.

Chemistry and the Living Organism. Molly M. Bloomfield. Wiley, New York, ed. 2, 1980. xvi, 600 pp., illus. \$17.50.

Chemistry with Inorganic Qualitative Analysis. Therald Moeller and 5 others. Academic Press, New York, 1980. xxx, 1086 pp., illus. + glossary. \$19.95.

Chlorofluorocarbons in the Environment. The Aerosol Controversy. Papers from a symposium, Brighton, England, Oct. 1978. T. M. Sugden and T. F. West, Eds. Published for the Society of Chemical Industry by Horwood, Chichester, England, 1980 (U.S. distributor, Halsted [Wiley], New York). 184 pp., illus. \$57.95.

Computers and Banking. Electronic Funds Transfer Systems and Public Policy. Kent W. Colton and Kenneth L. Kraemer, Eds. Plenum, New York, 1980. xvi, 310 pp. \$25. Applications of Modern Technology in Business.

Corrosion of Nickel and Nickel-Base Alloys. Wayne Z. Friend. Wiley-Interscience, New York, 1980. xii, 460 pp., illus. \$39.95. Corrosion Monograph Series.

Cryonics. A Sociology of Death and Bereavement. Arlene Sheskin. Irvington, New York, and Halsted (Wiley), New York, 1979. viii, 216 pp. \$16.95.

Crystals. Growth, Properties, and Applications. Vol. 2, Growth and Properties. Springer-Verlag, New York, 1980. vi, 202 pp., illus. \$48.40.

Current Concepts of Internal Fixation of Fractures. Hans K. Uhthoff and Elvira Stahl, Eds. Springer-Verlag, New York, 1980. x, 452 pp., illus. \$49.50.

Desert Housing. Balancing Experience and Technology for Dwelling in Hot Arid Zones. Kenneth N. Clark and Patricia Paylore, Eds. University of Arizona Office of Arid Lands Studies, Tucson, 1980. x, 340 pp., illus. Paper, \$15.

The Design of Biological Monitoring Systems for Pest Management. S. M. Welch and B. A. Croft. Halsted (Wiley), 1979. vi, 76 pp., illus. Paper, \$17.95. Simulation Monographs.

Development and Differentiation of Vertebrate Lymphocytes. Proceedings of a symposium, Durham, England, Sept. 1979. John D. Horton, Ed. Elsevier/North-Holland, New York, 1980. xii, 280 pp., illus. \$46.25. Developments in Immunology, vol. 8.

The Development of Modal Reasoning. Genesis of Necessity and Possibility Notions. Gilberte Piéraut-Le Bonniec. Translated from the French edition (1974). Academic Press, New York, 1980. xiv, 172 pp., illus. \$16.50. Developmental Psychology Series.

The Development of the U.S. Urban System. Vol. 1, Concepts, Structures, Regional Shifts. Edgar S. Dunn, Jr. Published for Resources for the Future by Johns Hopkins University Press, Baltimore, 1980. xvi, 206 pp., illus. + plates + microfiche appendix. \$65.

Developmental Nutrition. Lucille S. Hurley. Prentice-Hall, Englewood Cliffs, N.J., 1980. xvi, 336 pp., illus. \$14.95.

Differential Analysis. Differentiation, Differential Equations and Differential Inequalities. T. M. Flett. Cambridge University Press, New York, 1980. xviii, 360 pp. \$39.50.

Diffusion and Ecological Problems. Mathematical Models. Akira Okubo. Springer-Verlag, New York, 1980. xiv, 256 pp., illus. \$42.90. Biomathematics, vol. 10.

Disability. Proceedings of a seminar, Glasgow, Aug. 1978. R. M. Kenedi, J. P. Paul, and J. Hughes, Eds. Macmillan, London, 1979 (U.S. distributor, University Park Press, Baltimore). xxx, 524 pp., illus. \$89.50.

Disasters. The Anatomy of Environmental Hazards. John Whittow. University of Georgia Press, Athens, 1980. 412 pp., illus. \$18.95.

Discover Archaeology. An Introduction to the Tools and Techniques of Archaeological Fieldwork. George Sullivan. Doubleday, Garden City, N.Y., 1980. xii, 274 pp., illus. + plates. \$10.95.

Distributed Micro/Minicomputer Systems. Structure, Implementation, and Application. Cay Weitzman. Prentice-Hall, Englewood Cliffs, N.J., 1980. xii, 404 pp., illus. \$22.50.

Divided Loyalties. Whistle-Blowing at BART. Robert M. Anderson, Robert Perrucci, Dan E. Schendel, and Leon E. Trachtman. Purdue University, West Lafayette, Ind., 1980. x, 398 pp. Paper, \$4.95. Science and Society, vol. 4.

Driven Magnetic Fusion Reactors. Proceedings of a course, Erice-Trapani, Italy, Sept. 1978. B. Brunelli, Ed. Published for the Commission of the European Communities by Pergamon, New York, 1979. vi, 476 pp., illus. Paper. \$71.

Drug Design. Vol. 9. E. J. Ariëns, Ed. Academic Press, New York, 1980. xx, 356 pp., illus. \$39.50. Medicinal Chemistry, vol. 11. **Dynamic Optimization and Mathematical Economics.** Pan-Tai Liu, Ed. Plenum, New York, 1980. x, 270 pp. \$29.50. Mathematical Concepts and Methods in Science and Engineering, vol. 19.

Dynamics of Synergetic Systems. Proceedings of a symposium, Bielefeld, Germany, Sept. 1979. H. Haken, Ed. Springer-Verlag, New York, 1980. viii, 272 pp., illus. \$37.50. Springer Series in Synergetics, vol. 6.

Effects of Disease on Clinical Laboratory Tests. Richard B. Friedman, Renae E. Anderson, Steven M. Entine, and Shelley B. Hirshberg. American Association for Clinical Chemists, Washington, D.C., 1980. 476 pp. Paper, \$25. Clinical Chemistry, vol. 26, No. 4.

Electronics for the Physicist with Applications. C. F. G. Delaney. Horwood, Chichester, England, and Halsted (Wiley), New York, 1980. 306 pp., illus. \$37.50.

Electron-Molecule Scattering. Papers from a symposium, New Haven, Conn., Oct. 1977. Sanborn C. Brown, Ed. Wiley-Interscience, New York, 1980. xvi, 196 pp., illus. \$22.95. Wiley Series in Plasma Physics.

Electroshock. Its Brain-Disabling Effects. Peter Roger Breggin. Springer, New York, 1979. xii, 244 pp. \$17.95.

Elementary Analysis. The Theory of Calculus. Kenneth A. Ross. Springer-Verlag, New York, 1980. viii, 264 pp., illus. \$18.80. Undergraduate Texts in Mathematics.

Elementary Linear Algebra. Paul C. Shields. Worth, New York, ed. 3, 1980. xii, 510 pp., illus. \$16.95.

The Elements of Life. An Approach to Chemistry for the Health Sciences. Alan Sherman and Sharon J. Sherman. Prentice-Hall, Englewood Cliffs, N.J., 1980. xxiv, 532 pp., illus. \$17.95.

Energy. Sources of Print and Nonprint Materials. Maureen Crowley, Ed. Neal-Shuman, New York, 1980. xiv, 342 pp. \$17.95.

Energy and Environment. Readings from *Scientific American*. With Commentaries by Raymond Siever. Freeman, San Francisco, 1980. x, 232 pp., illus. Cloth, \$15.95; paper. \$8.95.

Energy and Environmental Balance. Earl Finbar Murphy. Pergamon, New York, 1980. viii, 282 pp. \$25. Pergamon Policy Studies on Energy and Environment.

Energy and Human Needs. Samuel C. Curran and John S. Curran. Halsted (Wiley). New York, 1980. xx, 330 pp., illus. + plates. \$24.95.

Energy Sources. The Promises and Problems. Louis H. Klotz, Ed. University of New Hampshire Center for Industrial and Institutional Development, Durham, 1980. Variously paged, illus. \$30.

The Enlightened Machine. An Analytical Introduction to Neuropsychology. Daniel N. Robinson. Columbia University Press, New York, 1980. xiv, 158 pp., illus. Paper, \$8. Reprint of 1973 edition.

The Eradication of Smallpox from India. R. N. Basu, Z. Jezek, and N. A. Ward. World Health Organization South-East Asia Regional Office, New Delhi, 1979 (U.S. distributor, WHO Publications Centre USA, Albany, N.Y.). xvi, 350 pp., illus. + plates. \$21.60. WHO Regional Publications South-East Asia Series No. 5. WHO Series History of International Public Health No. 2.

Ergot Compounds and Brain Function. Neuroendocrine and Neuropsychiatric Aspects. Papers from a symposium, New York, May 1979. Menek Goldstein, Donald B. Calne, Abraham Lieberman, and Michael O. Thorner, Eds. Raven, New York, 1980. xviii, 414 pp., illus. \$39. Advances in Biochemical Psychopharmacology, vol. 23.

Essays on the Theory of Joint Production. Luigi L. Pasinetti, Ed. Translated from the Italian edition (Bologna, 1977). Columbia University Press, New York, 1980. xviii, 244 pp. \$30.

Extrachromosomal Inheritance in Bacteria. Papers from a conference, Safed, Israel, Apr. 1978. I. Hertman, A. Shafferman, A. Cohen, and S. R. Smith, Eds. Karger, Basel, 1979. xiv, 238 pp., illus. \$69.25. Contributions to Microbiology and Immunology, vol. 6.

Foundations of Noninvasive Cardiovascular Diagnostic Processes. D. N. Ghista, E. Van Vollenhoven, W.-J. Yang, and H. Reul, Eds. Karger, Basel, 1979. x, 182 pp., illus. \$64. Advances in Cardiovascular Physics, vol. 4.

Free Radicals in Biology. Vol. 4. William A. Pryor, Ed. Academic Press, New York, 1980. xxii, 348 pp., illus. \$46.

Fungal Viruses. Proceedings of a symposium, Munich, Sept. 1978. H. P. Molitoris, M. Hollings, and H. A. Wood, Eds. Springer-Verlag, New York, 1979. xiv, 196 pp., illus. \$31.90. Proceedings in Life Sciences.

Gel Chromatography. Theory, Methodology, Applications. Tibor Kremmer and László Boross. Translated from the Hungarian edition. Wiley-Interscience, New York, 1980. 300 pp., illus. \$45.

General Chemistry. John B. Russell. McGraw-Hill, New York, 1980. xviii, 798 pp., illus. \$19.95. McGraw-Hill Series in Chemistry.

Generators and Relations for Discrete Groups. H. S. M. Coxeter and W. O. J. Moser. Springer-Verlag, New York, ed. 4, 1980. x, 170 pp., illus. \$37.40. Ergebnisse der Mathematik und ihrer Grenzgebiete 14.

General Biology Laboratory Guide. J. E. Wodsedalek, H. L. Dean, and T. E. Rogers. Brown, Dubuque, Iowa, ed. 4, 1980. viii, 266 pp., illus. Spiral bound, \$8.95.

La Genèse des Nodules de Manganèse. Papers from a meeting, Gif-sur-Yvette, France, Sept. 1978. Editions du Centre National de la Recherche Scientifique, Paris, 1979. 410 pp., illus. Paper, 300 F. Colloques Internationaux du Centre National de la Recherche Scientifique, No. 289.

Genetic Aspects of Affective Illness. Julien Mendlewicz and Baron Shopsin, Eds. SP Medical and Scientific Books (Spectrum), New York, 1979. viii, 104 pp. \$15.

Geochemistry of Organic Molecules. Keith A. Kvenvolden, Ed. Dowden, Hutchinson and Ross, Stroudsburg, Pa., 1980 (distributor, Academic Press, New York). xviii, 358 pp., illus. \$34. Benchmark Papers in Geology, vol. 52.

Geocryology. A Survey of Periglacial Processes and Environments. A. L. Washburn. Halsted (Wiley), New York, 1980. x, 406 pp., illus. \$64.75. New edition of *Periglacial Pro*cesses and Environments.

Geology and the Urban Environment. David Leveson. Oxford University Press, New York, 1980. xii, 386 pp., illus. \$17.95.

Hemoglobinopathies in Children. Elias Schwartz, Ed. PSG Publishing Company, Littleton, Mass., 1980. xiv, 386 pp., illus. \$27.50. Progress in Pediatric Hematology/Oncology, vol. 3.

Holding On or Letting Go. Men and Career Change at Midlife. Samuel D. Osherson. Free Press (Macmillan), New York, and Collier Macmillan, London, 1980. xiv, 258 pp. \$19.95.

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BOOKS RECEIVED

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neering Revisited. Papers from a AAAS symposium, 1979. Frank P. Davidson, C. Lawrence Meador, and Robert Salkeld, Eds. Published for the American Association for the Advancement of Science by Westview Press, Boulder, Colo., 1980. xxviii, 384 pp., illus. \$28.50. AAAS Selected Symposia Series, 40.

How to Save the World. Symposia Series, 40. Conservation. Robert Allen. Barnes and Noble, Totowa, N.J., 1980. 150 pp., illus. \$12.95.

Human Anatomy and Physiology. Alvin Silverstein. Paintings by Howard Friedman. Wiley, New York, 1980. xviii, 888 pp. \$24.95.

The Human Body. Structure and Function in Health and Disease. Stewart M. Brooks and Natalie Paynton-Brooks. Mosby, St. Louis, ed. 2, 1980. xviii, 532 pp., illus. Paper, \$16.95.

Human Physiology. The Mechanisms of Body Function. Arthur J. Vander, James H. Sherman, and Dorothy S. Luciano. McGraw-Hill, New York, ed. 3, 1980. x, 724 pp., illus. \$20.95.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Vol. 20, Some Halogenated Hydrocarbons. International Agency for Research on Cancer, Lyon, 1979. iv, 610 pp. Paper, \$35.

Identification Methods for Microbiologists. F. A. Skinner and D. W. Lovelock, Eds. Academic Press, New York, ed. 2, 1979. xii, 316 pp., illus. \$34.50. Society for Applied Bacteriology Technical Series No. 14.

Ideology of/in the Natural Sciences. Hilary Rose and Steven Rose, Eds. Schenkman, Cambridge, Mass., 1980. xliv, 364 pp. Paper, \$6.95. Reprint of *The Radicalisation of Sci*ence and *The Political Economy of Science* (1977).

Inherited Disorders of Carbohydrate Metabolism. Papers from a symposium, Bristol, England, July 1978. D. Burman, J. B. Holton, and C. A. Pennock, Eds. University Park Press, Baltimore, 1980. xiv, 434 pp., illus. \$39.50.

Language, Reading and Learning. Asher Cashdan, Ed. University Park Press, Baltimore, 1979. x, 172 pp. Paper, \$11.95.

Law and Science. A Selected Bibliography. Compiled by Morris L. Cohen, Naomi Ronen, and Jan Stepan. Vivien B. Shelanski and Marcel C. La Follette, Eds. MIT Press, Cambridge, Mass., 1980. xx, 156 pp. \$15.

Lead Toxicity. R. L. Singhal and J. A. Thomas, Eds. Urban & Schwarzenberg, Baltimore, 1980. xii, 514 pp., illus. \$39.50.

Lectures on Wave Propagation. G. B. Whitham. Published for the Tata Institute of Fundamental Research, Bombay, by Springer-Verlag, New York, 1979. vi, 152 pp., illus. Paper, \$8.

The Letters of Georges Cuvier. A Summary Calendar of Manuscript and Printed Materials Preserved in Europe, The United States of America, and Australasia. Dorinda Outram, Ed. British Society for the History of Science, Chalfont St. Giles, Bucks., England, 1979. iv, 102 pp. Paper, £4.50. British Society for the History of Science Monographs, 2.

The Life of Music in North India. The Organization of an Artistic Tradition. Daniel M. Neuman. Wayne State University Press, Detroit, 1980. 298 pp., illus. \$16.95.

Lithium. Controversies and Unresolved Issues. Proceedings of a conference, New York, June 1978. T. B. Cooper, S. Gershon, N. S. Kline, and M. Schou, Eds. Excerpta Medica, Amsterdam, 1979 (U.S. distributor, Elsevier/North-Holland, New York). xiv, 984 pp., illus. \$183.

Living Archaeology. R. A. Gould. Cambridge University Press, New York, 1980. xvi, 270 pp., illus. Cloth, \$27.50; paper, \$9.95. New Studies in Archaeology.

Logic and Structure. Dirk van Dalen. Springer-Verlag, New York, 1980. x, 174 pp. Paper, \$12.80. Universitext.

Lost Country Life. Dorothy Hartley. Pantheon, New York, 1980. x, 374 pp., illus. + plates. \$14.95.

Low Temperature Stress in Crop Plants. The Role of the Membrane. Proceedings of a seminar, Honolulu, Mar. 1979. James M. Lyons, Douglas Graham, and John K. Raison, Eds. Academic Press, New York, 1979. xvi, 566 pp., illus. \$35.

Mathematical Modelling in Biology and Ecology. Proceedings of a symposium, Pretoria, South Africa, July 1979. W. M. Getz, Ed. Springer-Verlag, New York, 1980. viii, 356 pp., illus. Paper, \$24. Lecture Notes in Biomathematics, vol. 33. Mathematical Models in the Social, Manage-

Mathematical Models in the Social, Management and Life Sciences. D. N. Burghes and A. D. Wood. Horwood, Chichester, England, and Halsted (Wiley), New York, 1980. 288 pp., illus. \$38.95. Mathematics and Its Applications.

McGraw-Hill Encyclopedia of Environmental Science. Sybil P. Parker, Ed. McGraw-Hill, New York, ed. 2, 1980. x, 858 pp., illus. \$34.50.

McGraw-Hill Modern Scientists and Engineers. McGraw-Hill, New York, 1980. Three volumes; illus. xii, 466 pp.; x, 450 pp.; and viii, 452 pp. \$110. New edition of McGraw-Hill Modern Men of Science.

The Measurement of Economic Growth. Dan Usher. Columbia University Press, New York, 1980. x, 306 pp., illus. \$22.50.

The Melody of Language. Linda R. Waugh and C. H. van Schooneveld, Eds. University Park Press, Baltimore, 1980. xiv, 378 pp., illus. \$29.50.

Membrane-Membrane Interactions. Papers from a symposium. Norton B. Gilula, Ed. Raven, New York, 1980. xii, 218 pp., illus. \$27. Society of General Physiologists Series, vol. 34.

Membrane Structure and Function. Vol. 1. E. Edward Bittar, Ed. Wiley-Interscience, New York, 1980. x, 212 pp., illus. \$22.50.

Memory and Cognition. An Introduction. John G. Seamon. Oxford University Press, New York, 1980. x, 262 pp., illus. Cloth, \$14.95; paper, \$7.95.

Mental Health in the 21st Century. Thomas A. Williams and James H. Johnson, Eds. Lexington (Heath), Lexington, Mass., 1979. xii, 196 pp. \$21.

Metal and Metalloid Amides. Syntheses, Structures, and Physical and Chemical Properties. M. F. Lappert, P. P. Power, A. R. Sanger, and R. C. Srivastava. Horwood, Chichester, England, and Halsted (Wiley), New York, 1980. 848 pp., illus. \$145.

Methodologies for the Study of Low-Level Radiation in the Midwest. Charles W. Huver, Gertrude A. Dixon, Naomi Jacobson, and George I. J. Dixon. Land Educational Associates Foundation, Stevens Point, Wis., 1979. 188 pp. Cloth, \$10.95; paper, \$5.

Methods for Analysis of Musts and Wines. M. A. Amerine and C. S. Ough. Wiley-Interscience, New York, 1980. x, 342 pp., illus. \$30.

Methods in Enzymology. Sidney P. Colowick and Nathan O. Kaplan, Eds. Vol. 64, Enzyme Kinetics and Mechanism. Part B, Isotopic Probes and Complex Enzyme Systems. Daniel L. Purich, Ed. Academic Press, New York, 1980. xviii, 418 pp., illus. \$35.

Microbial Polysaccharides and Polysaccharases. Papers from a meeting, Aberdeen, Sept. 1978. R. C. W. Berkeley, G. W. Gooday, and D. C. Ellwood, Eds. Published for the Society for General Microbiology by Academic Press, New York, 1979. xvi, 480 pp., illus. \$37. Special Publications of the Society for General Microbiology, 3.

Microcomputers. A Technology Forecast and Assessment to the Year 2000. Kensall D. Wise, Kan Chen, and Ronald E. Yokely. Wiley-Interscience, New York, 1980. xviii, 252 pp., illus. \$15.95. Wiley Series on Systems Engineering and Analysis.

Molecular Association. Including Molecular Complexes. Vol. 2. R. Foster, Ed. Academic Press, New York, 1979. xvi, 498 pp., illus. \$89.

Le Mongolisme. Jean-Luc Lambert and Jean A. Rondal. Mardaga, Brussels, 1979. 220 pp., illus. Paper, 360 BF. Psychologie et Sciences Humaines.

Monsters in the Sky. Paolo Maffei. Translated from the second Italian edition (Milan, 1977) by Mirella and Riccardo Giacconi. MIT Press, Cambridge, Mass., 1980. x, 342 pp., illus. \$15.

The Monte Carlo Methods in Atmospheric Optics. G. I. Marchuk and five others. Springer-Verlag, New York, 1980. viii, 210 pp., illus. \$29.80. Springer Series in Optical Sciences, vol. 12.

Na, K-ATPase. Structure and Kinetics. Proceedings of a conference, Sønderborg, Denmark, Sept. 1978. J. C. Skou and J. G. Nørby, Eds. Academic Press, New York, 1979. xii, 550 pp., illus. \$52.

The Narrow Lumbar Canal. Radiologic Signs and Surgery. A. Wackenheim and E. Babin. Springer-Verlag, New York, 1980. xiv, 172 pp., illus. \$99.50.

Nature and Origin of Carbohydrates in Soils. M. V. Cheshire. Academic Press, New York, 1979. viii, 216 pp., illus. \$36.50.

A New Age-Scale for Humans. Daniel Hershey and Hsuan-Hsien Wang. Lexington (Heath), Lexington, Mass., 1980. xiv, 158 pp., illus. \$19.95.

Nine Years Old. Margaret Pollak. University Park Press, Baltimore, 1979. x, 196 pp. \$27.50.

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Number Theory. Helmut Hasse. Translated from the third German edition (Berlin, 1969). Horst Günter Zimmer, Transl. Ed. Springer-Verlag, New York, 1980. xviii, 640 pp. \$49. Grundlehren der mathematischen Wissenschaften 229.

Numerical Analysis. Proceedings of a conference, Dundee, Scotland, June 1979. G. A. Watson, Ed. Springer-Verlag, New York, 1980. x, 186 pp. Paper, \$11.80. Lecture Notes in Mathematics, vol. 773.

The Optical Design of Reflectors. William B. Elmer. Wiley, New York, ed. 2, 1980. xxii, 290 pp., illus. \$24.95.

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Organic Synthesis with Palladium Compounds. Jiro Tsuji. Springer-Verlag, New York, 1980. xii, 210 pp., illus. \$49.50. Reactivity and Structure Concepts in Organic Chemistry, vol. 10.

Organizational Psychology. Edgar H. Schein. Prentice-Hall, Englewood Cliffs, N.J., ed. 3, 1980. xiv, 274 pp. Cloth, \$11.95; paper, \$6.95. Prentice-Hall Foundations of Modern Psychology Series.

The Organs of Equilibrium and Orientation as a Control System. Máximo Valentinuzzi. Harwood Academic Publishers, New York, 1980. xiv, 194 pp., illus. \$45. Biomedical Engineering and Computation Series, vol. 2.

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The Origins of Human Competence. The Final Report of the Harvard Preschool Project. Burton L. White, Barbara T. Kaban, and Jane S. Attanucci. Lexington (Heath), Lexington, Mass., 1979. xiv, 438 pp. \$18.95.

Origins of the Infant's Social Responsiveness. The Johnson & Johnson Baby Products Company Pediatric Round Table, II. Evelyn B. Thoman, Ed. Erlbaum, Hillsdale, N.J., 1979 (distributor, Halsted [Wiley], New York). xviii, 470 pp., illus. \$29.95.

Pain in Shoulder and Arm. An Integrated View. J. M. Greep, H. A. J. Lemmens, D. B. Roos, and H. C. Urschel, Eds. Nijhoff, The Hague, 1979 (U.S. distributor, Kluwer Boston, Hingham, Mass.). xii, 306 pp., illus. \$47.35. Developments in Surgery, vol. 1.

Palladium Catalyzed Oxidation of Hydrocarbons. Patrick M. Henry. Reidel, Boston, 1980 (distributor, Kluwer Boston, Hingham, Mass.). xvi, 436 pp., illus. \$65. Catalysis by Metal Complexes, vol. 2.

Plant Breeding and Genetics in Horticulture. C. North. Halsted (Wiley), New York, 1980. x, 150 pp., illus. Paper, \$14.95.

Plant Health. The Scientific Basis for Administrative Control of Plant Diseases and Pests. D. L. Ebbels and J. E. King, Eds. Blackwell, Oxford, 1980 (U.S. distributor, Halsted [Wiley], New York). xii, 322 pp., illus. \$49.95.

Point Defects in Metals II. Dynamical Properties and Diffusion Controlled Reactions. P. H. Dederichs, K. Schroeder, and R. Zeller. Springer-Verlag, New York, 1980. x, 264 pp., illus. \$39.60. Springer Tracts in Modern Physics, vol. 87.

The Powers of Psychiatry. Jonas Robitscher. Houghton Mifflin, Boston, 1980. xviii, 558 pp. \$17.95.

Prediction Methods for Turbulent Flows. Wolfgang Kollmann, Ed. Hemisphere, Washington, D.C., 1980. viii, 468 pp., illus. \$47.50.

The Pre-Glacial Pleistocene of the Norfolk and Suffolk Coasts. R. G. West with contributions by P. E. P. Norton, B. W. Sparks, and D. G. Wilson. Cambridge University Press, New York, 1980. xii, 204 pp. + plates + booklet with figures. \$84.

Preleukemia. Papers from a symposium. Innsbruck, Austria, 1978. F. Schmalzl and K.-P. Hellriegel, Eds. Springer-Verlag, New York, 1979. xii, 196 pp., illus. Paper, \$26.40. A Prelude to Genetics. Theories of a Material Substance of Heredity: Darwin to Weissmann. Gloria Robinson. Coronado Press, Lawrence, Kans., 1979. xvi, 260 pp., illus. \$15.

Primary Intracranial Neoplasms. Joanna Hollenberg Sher and Donald H. Ford. SP Medical and Scientific Books (Spectrum), New York, 1979. xii, 152 pp., illus. \$15.

Principles of Clinical Psychiatry. Arnold M. Ludwig. Free Press (Macmillan), New York, and Collier Macmillan, London, 1980. x, 438 pp. \$22.95.

Problem Solving and Education. Issues in Teaching and Research. Papers from a conference, Pittsburgh, Oct. 1978. D. T. Tuma and F. Reif, Eds. Erlbaum, Hillsdale, N.J., 1980 (distributor, Halsted [Wiley], New York). xii, 212 pp., illus. \$16.50.

Psychology and Behavioral Medicine. S. J. Rachman and Clare Philips. Cambridge University Press, New York, 1980. x, 164 pp. Cloth, \$19.95; paper, \$5.95. Revised edition of *Psychology and Medicine* (1975).

The Psychopathology of Women. Ihsan Al-Issa. Prentice-Hall, Englewood Cliffs, N.J., 1980. x, 390 pp., illus. Cloth, \$15.95; paper, \$7.95.

Puzzle Thinking. Steps to Logical Thinking and Problem Solving. Franette Walberg. Illustrated by Lynne Reisbord. Franklin Institute Press, Philadelphia, 1980. xxx, 118 pp. Paper, \$6.95.

Race Relations. Harry H. L. Kitano. Prentice-Hall, Englewood Cliffs, N.J., ed. 2, 1980. xiv, 320 pp., illus. \$15.95.

Receptors and Human Diseases. Papers from a conference, New Orleans, Dec. 1978. Alexander G. Bearn and Purnell W. Choppin, Eds. Josiah Macy, Jr. Foundation, New York, 1979 (distributor, Independent Publishers Group, Port Washington, N.Y.). xiv, 334 pp., illus. Paper, \$4.

Receptors for Neurotransmitters and Peptide Hormones. Papers from a colloquium, Capri. Giancarlo Pepeu, Michael J. Kuhar, and S. J. Enna, Eds. Raven, New York, 1980. xxviii, 516 pp., illus. \$48. Advances in Biochemical Psychopharmacology, vol. 21.

Regenerative Simulation of Response Times in Networks of Queues. D. L. Iglehart and G. S. Shedler. Springer-Verlag, New York, 1980. xii, 204 pp., illus. Paper, \$15.70. Lecture Notes in Control and Information Sciences, vol. 26.

Residue Reviews. Residues of Pesticides and Other Contaminants in the Total Environment. Vol. 73. Francis A. Gunther and Jane Davies Gunther, Eds. Springer-Verlag, New York, 1980. x, 130 pp. \$21.80.

A Revision of the Subfamily Coelidiinae (Homoptera: Cicadellidae). Part 3, Teruliini, New Tribe. M. W. Nielson. Bishop Museum Press, Honolulu, 1979. 330 pp., illus. Paper, \$24.50. Pacific Insects Monograph 35.

Safety in Process Plant Design. G. L. Wells. Godwin, London, and Halsted (Wiley), New York, 1980. xiv, 278 pp., illus. \$59.95.

Science and Technology and the Future. Proceedings of a conference, Berlin, May 1979. Hans Buchholz and Wolfgang Gmelin, Eds. K. G. Saur, New York, 1979. Two volumes. viii, 1440 pp., illus. Paper, \$58.

Science in Action. John Lenihan. Illustrated by John B. Fleming. Institute of Physics, Bristol, 1979 (U.S. distributor, Heyden, Philadelphia). x, 224 pp. \$18.75.

The Surgeon's Surgeon. Theodor Billroth, 1829-1894. Vol. 1. Karel B. Absolon. Coronado Press, Lawrence, Kans., 1979. xxvi, 282 pp. + plates. \$14.50. Theoretical Mechanics of Particles and Continua. Alexander L. Fetter and John Dirk Walecka. McGraw-Hill, New York, 1980. xx, 570 pp., illus. \$23. International Series in Pure and Applied Physics.

Theory and Evidence. Clark Glymour. Princeton University Press, Princeton, N.J., 1980. xii, 384 pp., illus. Cloth, \$25; paper, \$9.95.

Thermal Energy Recovery. John L. Boyen. Wiley-Interscience, New York, ed. 2, 1980. xiv, 346 pp., illus. \$27.50.

Thin-Walled Structures. Recent Technical Advances and Trends in Design, Research and Construction. Papers from a conference, Glasgow, Apr. 1979. J. Rhodes and A. C. Walker, Eds. Halsted (Wiley), New York, 1980. x, 796 pp., illus. \$49.95.

Timescales in Geomorphology. Papers from a symposium, Hull, England, Jan. 1978. R. A. Cullingford, D. A. Davidson, and J. Lewin, Eds. Wiley-Interscience, New York, 1980. x, 360 pp., illus. \$61.95. A Publication of the British Geomorphological Research Group.

Topics in Bioelectrochemistry and Bioenergetics. Vol. 3. G. Milazzo, Ed. Wiley-Interscience, New York, 1980. xiv, 360 pp., illus. \$80.

Topics in Enzyme and Fermentation Biotechnology. Vol. 4. Alan Wiseman, Ed. Horwood, Chichester, England, and Halsted (Wiley), New York, 1980. 242 pp., illus. \$69.95.

Transfer RNA. Structure, Properties and Recognition. Papers from a meeting. Cold Spring Harbor, N.Y., Aug. 1978. Paul R. Schimmel, Dieter Söll, and John N. Abelson, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y., 1979. xii, 578 pp., illus. \$60. Cold Spring Harbor Monograph Series, 9A.

Transition Metal Complexes of Cyclic Polyolefins. G. Deganello. Academic Press, New York, 1979. x, 476 pp., illus. \$79.50. Organometallic Chemistry.

Treatise on Materials Science and Technology. Vol. 19, Experimental Methods, Part A. Herbert Herman, Ed. Academic Press, New York, 1980. xii, 264 pp., illus. \$32.

Ultraviolet Radiation. World Health Organization, Geneva, 1979 (U.S. distributor, WHO Publications Centre USA, Albany, N.Y.). 110 pp., illus. Paper, \$6. Environmental Health Criteria 14.

The Vascular System of the Cerebral Cortex. Thomas Bär. Springer-Verlag, New York, 1980. vi, 64 pp., illus. Paper, \$22. Advances in Anatomy, Embryology and Cell Biology, vol. 59.

Vertebrate Dissection. Warren F. Walker, Saunders, Philadelphia, ed. 6, 1980. xviii, 426 pp., illus. Paper, \$10.

Viruses in Families. Surveillance of Families as a Key to Epidemiology of Virus Infections. John P. Fox and Carrie E. Hall. PSG Publishing Company, Littleton, Mass., 1980. xx, 442 pp., illus. \$39.95.

The Volterra and Wiener Theories of Nonlinear Systems. Martin Schetzen. Wiley-Interscience, New York, 1980. xviii, 532 pp., illus. \$28.50.

Who Goes There? The Search for Intelligent Life in the Universe. Edward Edelson. McGraw-Hill, New York, 1980. xx, 196 pp. + plates. Paper, \$4.95. Reprint of the 1979 edition.

Zinc in the Environment. Jerome O. Nriagu, Ed. Wiley-Interscience, New York, 1980. Two volumes. Part 1, Ecological Cycling. xiv, 454 pp., illus. \$45. Part 2, Health Effects. xiv, 480 pp. \$45. Environmental Science and Technology.



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ASSISTANT PROFESSOR (anticipated) tenuretrack, with a major background in radiation physics is being sought to serve within the expanding interdisciplinary areas of radiation biophysics, radiation therapy, and associated programs in the biological and physical sciences. Expertise for teaching dosimetry, shielding, and medical physics at the graduate level is required. Research expertise and interest must be in radiation physics. A Ph.D. is required. Starting date is 16 August 1981 (fall academic term). More details will be sent upon request. Send applications, including complete résumé, list of publications, statement of research interests, and three supporting letters, by 15 December 1980 to: Dr. Ben Friesen, Radiation Biophysics, University of Kansas, 140 NRC, West 15 Street, Lawrence, Kans. 66045. An Equal Opportunity Employer.

ASSISTANT PROFESSOR IN MICROBIOLOGY AND IMMUNOLOGY at the University of Illinois at the Medical Center. Person with M.D. or Ph.D. having demonstrated research excellence in recombinant DNA/plasmids to help develop programs in areas of environmental pollution and/or bacterial pathogenesis. Selected person must have potential to develop independent research programs in these areas and help teach graduate courses. Send curriculum vitae, bibliography, and names of references by 15 January 1981 to: Dr. Newton Khoobyarian, Professor and Acting Head, Department of Micro/Immunology, University of Illinois at the Medical Center, P.O. Box 6998, Chicago, Ill. 60680. An Equal Opportunity/ Affirmative Action Employer.

ASSISTANT PROFESSOR, PHYSICS. Four-year state college stressing undergraduate teaching excellence. Ability to teach beginning and advanced physics courses. Some research facilities available, research encouraged. Preference given to candidates able to teach or with commitment to learn to teach computer sciences. Ph.D. or A.B.D. in physics required. Some college teaching experience desirable. Salary: \$16,606 to \$18,267, 10 months, starting January 1981. Send résumés by 8 December 1980 to: Affirmative Action Office, Ramapo College of New Jersey, 505 Ramapo Valley Road, Mahwah, N.J. 07430. An Afirmative Action/Equal Opportunity/Disabled Employer. Barrier free.

PROFESSOR OF PUBLIC HEALTH (applied behavioral sciences). Doctoral degree in an appropriate behavioral science area. Concern with understanding social and behavioral factors which influence the health of population groups and upon which maintenance and restorative health interventions and programs must be based; theory relevant to planned change; evaluation efforts and policy decisions for health programs; contribution to basic related research. Ability to offer courses and seminars for masters and doctoral students. *The University of California is an Affirmative Action Employer*. Subnit curriculum vitae and publications by 15 January 1981 to: Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.

POSITIONS OPEN

ASSISTANT PROFESSOR OF PHYSIOLOGY

This is a tenure-track position in a department that presently consists of one adjunct and five full-time faculty members. The position can be filled any time after 1 December 1980.

The Quillen-Dishner College of Medicine will start its fourth class of medical students in fall 1981. The presently authorized class size is 48 and future plans are projected for a class size of 72 students. The Graduate School offers the degrees of M.S. and Ph.D. in the biomedical sciences.

Candidates must have the Ph.D. or M.D. degrees and be capable of teaching medical students in areas outside of their own research interests. They will be expected to develop and pursue independent research programs. The research interests of candidates are not critical.

Interested persons should send their curriculum vitae and the names of three references to:

Robert W. Rasch, M.D., Ph.D.

Quillen-Dishner College of Medicine, Box 19, 780A East Tennessee State University Johnson City, Tenn. 37614

East Tennessee State University is an Equal Opportunity/Affirmative Action Employer.

The Civil Engineering Department and the Division of Environmental Studies at the University of California, Davis, seek applications for a regular faculty position at the ASSISTANT PROFESSOR level in POLICY ANALYSIS. Requirements include Ph.D. degree (or equivalent qualifications) and evidence of scholarly experience and promise in the analysis and evaluation of public policy, with emphasis on any area related to transportation such as energy, environmental quality, or natural resources. Teaching duties will include transportation systems and policy analysis, and may include courses in methods of policy analysis, energy policy analysis, or related areas. The deadline for applications is 15 January 1981. Applicants should submit curriculum vitae, transcripts, the names and addresses (only) of three references, and copies of relevant publications. For further information, contact: Dr. James E. Wilen, Chair of the Search Committee, Division of Environmental Studies, University of California, Davis, California 95616. The University of California is an Equal Opportu-

The University of California is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.

The Department of Psychology, University of Georgia, invites applications for a tenure-track position at the ASSISTANT PROFESSOR level beginning in September 1981. A candidate should have a Ph.D. degree in psychology, postdoctoral research experience, a fundable program of research, and demonstrated teaching ability in the areas of physiological and experimental sensory neuropsychology, sensory psychophysiology, and neurobiology. Competence in intra- and extracellular recording techniques as well as psychophysical methods is expected.

Applicants are invited to send, by 1 February 1981, curriculum vitae, names and addresses of three references, and a letter describing research and teaching interest to: L. J. Peacock, Ph.D., Chairman, Biopsychology Search Committee, Department of Psychology, University of Georgia, Athens, Georgia 30602. An Equal Opportunity/Affirmative Action Institution.

ASSOCIATE PROFESSOR OF PUBLIC HEALTH (applied behavioral sciences). Doctoral degree in a relevant behavioral science area. Concern with the type and extent of medical and social problems created by substance abuse; social theory that seeks to explain these phenomena; social programs and policies designed to prevent or mitigate problems associated with substance abuse. Ability to offer courses and seminars for masters and doctoral students. The University of California is an Affirmative Action Employer. Submit curriculum vitae and publications by 15 January 1981 to: Chairman, Department of Social and Administrative Health, University of California, Berkeley, California 94720.

BIOCHEMIST POSTDOCTORAL POSITION in endocrinology research. Studies on hormone receptors and the mechanism of action of steroid hormones. Send application to: Dr. David O. Toft, Department of Cell Biology, Mayo Medical School, Rochester, Minn. 55901.

Mayo is an Equal Opportunity/Affirmative Action Institution.

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR OF PUBLIC HEALTH (health and medical care organization and administration). Doctoral degree in an academic or professional area relevant to health and medical care, and at least 2 years either in direct administrative experience or applicable research. Emphasis on analysis and policy formulation for improvement of public sector role. Ability to offer courses and seminars for masters and doctoral students. The University of California is an Affirmative Action Employer. Submit curriculum vitae and publications by 15 January 1981 to: Chairman, Department of Social and Administrative Health, University of California, Berkeley, California 94720.

ASSISTANT PROFESSOR OF PUBLIC HEALTH (health policy and law). Doctoral degree, preferably in law; may consider those in political science, public administration, public policy, or equivalent. Concern with bridging the fields of health law and administration, planning and policy as related to public sector programs. Ability to offer courses and seminars for masters and doctoral students. The University of California is an Affirmative Action Employer. Submit curriculum vitae and publications by 15 January 1981 to: Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.

ASSISTANT OR ASSOCIATE PROFESSOR OF PUBLIC HEALTH (health economics). Doctoral degree in economics, business administration, or a closely related field, and interest and qualifications for joint appointment (primary in School of Public Health, secondary in School of Business Administration). As a complement to existing faculty strength in macroeconomics of health, specialist in microeconomics of health service programs and institutions will be concerned with planning, administration, and evaluation of health programs and with related health policy and decision-making. Ability to offer courses and seminars for masters and doctoral students. The University of California is an Afirmative Action Employer. Submit curriculum vitae and publications by 15 January 1981 to: Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.

ASSISTANT OR ASSOCIATE PROFESSOR OF PUBLIC HEALTH (systems analysis for health services planning and operations). Doctoral degree, preferably in management science, operations research, or systems analysis, and interest and qualifications for joint appointment (primary in School of Public Health, secondary in School of Business Administration). Application of quantitative analysis to health policy decision-making and to the planning, administration, and evaluation of health programs and services in a manner relevant to significant public health issues. Ability to offer courses and seminars for masters and doctoral students. The University of California is an Affirmative Action Employer. Submit curriculum vitae and publications by 15 January 1981 to: Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.

ASSISTANT PROFESSOR OF PUBLIC HEALTH (public health education). Doctoral degree in health education or related field. M.P.H. desirable. Concern with an interdisciplinary teaching approach relating social and behavioral theory relevant to the practice of health education to a variety of health care settings and with a focus on diverse population groups. Contribute to research upon which policy and program decisions in the social and administrative health sciences can be based. Ability to offer courses and seminars for masters and doctoral students. The University of California is an Affirmative Action Employer. Submit curriculum vitae and publications by 15 January 1981 to: Chairman, Department of Social and Administrative Health, University of California, Berkeley, California 94720.

Ph.D. BIOLOGY. Competence to teach in the areas of molecular biology, microbiology, development biology, and vertebrate physiology, with specialization in one of these. Submit a letter of application with curriculum vitae to: Dr. Harold Heie, Vice President for Academic Affairs, Northwestern College, Orange City, Iowa 51041. Northwestern is an undergraduate Christian liberal arts college affiliated with the Reformed Church in America. An Equal Opportunity Employer.

ASSOCIATE DIRECTOR COLLEGE OF AGRICULTURE EXPERIMENT STATIONS UNIVERSITY OF IDAHO

The University of Idaho serves the research needs of Idaho through a system of Research and Extension Centers. The associate director and the dean and director of the Agricultural Experiment Stations are responsible for coordinating and administering these statewide research programs. An earned Ph.D. and evidence of success as a scientist are required. Candidates should also have a demonstrated ability to work effectively with both scientists and representatives of the agricultural public. Complete applications, curriculum vitae, and three letters of reference must be postmarked by 15 January 1981. Send applications and inquiries to: Dr. S. L. Davis, College of Agriculture, University of Idaho, Moscow, Idaho 83843. The University of Idaho is an Equal Opportunity Employer.

The Department of Ophthalmology, Emory University School of Medicine, seeks one Ph.D.—BIO-CHEMIST/ENZYMOLOGIST and one TECHNI-CIAN with experience in inflammatory mediators, cell culture, protein purification, and connective tissue to work on mechanisms of corneal destruction (begin 1 February 1981). Appointments and salaries commensurate with experience. Please send curriculum vitae and names of three references to: Dr. M. Berman, c/o Eye Research Institute of Retina Foundation, 20 Staniford Street, Boston, Mass. 02114 (December 1980 and January 1981); or c/o Emory University School of Medicine, Department of Ophthalmology, 1339 Clifton Road, NE, Atlanta, Ga. 30322 (February 1981 and beyond). Emory University is an Equal Opportunity Employer.

BIOLOGICAL CHEMISTRY/ORGANIC CHEMISTRY—ASSISTANT PROFESSOR

The Division of Nuclear Medicine, UCLA School of Medicine, invites applications from outstanding individuals with research interests in bioorganic chemistry. Position available beginning January 1981. Applicants should submit curriculum vitae, list of publications, three letters of recommendation, and an outline of research interests to: Chairman, Search Committee, Laboratory of Nuclear Medicine and Radiation Biology, Personnel Division, 900 Veteran Avenue, Los Angeles, California 90024. An Equal Opportunity/Affirmative Action Employer.

BOTANIST. A tenure-track position at the assistant professor level will be available beginning September 1981. Applicants should have research expertise with higher plants and have the background to teach elementary botany and either microbiology or genetics. Please submit curriculum vitae, a statement of research and teaching experience, transcripts, and three letters of recommendation by 1 January 1981 to: Dr. Emil Bernstein, Chairperson, Department of Biology, Allegheny College, Meadville, Pa. 16335. Equal Opportunity Employer.

CHAIRPERSON DEPARTMENT OF BIOCHEMISTRY WEST VIRGINIA UNIVERSITY

West Virginia University School of Medicine is seeking a biochemist with an established record of scholarly achievement, excellence in teaching, and preferably some administrative experience, to chair the Department of Biochemistry. Candidates must have an active research program and a demonstrated ability to generate extramural research support. A strong commitment to excellence in teaching and research within the context of a university medical center is essential. Closing date for applications is 1 January 1981. Qualified applicants should submit their curriculum vitae and the names and addresses of three references to: Dr. Robert S. McCuskey, Professor and Chairman of Anatomy, West Virginia University Medical Center, Morgantown, West Virginia 26506. West Virginia University is an Affirmative Action/Equal Opportunity Employer.

PHYSIOLOGIST/ANATOMIST. A tenure-track position at the assistant professor level will be available beginning September 1981. Applicants should have research expertise in systems physiology and be able to teach courses in human anatomy and physiology, comparative anatomy, zoology, and introductory biology. Please submit curriculum vitae, a statement of research and teaching experience, transcripts, and three letters of recommendation by 1 January 1981 to: Dr. Emil Bernstein, Chairperson, Department of Biology, Allegheny College, Meadville, Pa. 16335. Equal Opportunity Employer.

POSITIONS OPEN

KENNEDY INSTITUTE OF RHEUMATOLOGY CELL BIOLOGIST

Applications are invited from suitably qualified and experienced scientists with a broad interest in problems of cellular interactions, for a new post at the Kennedy Institute.

This will be an established post at senior level and the successful applicant will be required to set up and lead a new group, reporting to the director, Dr. Helen Muir. The formation of this group will complete the current reorganisation of the Institute, and it will carry out a research programme into aspects, both fundamental and applied, of cell biology relevant to the rheumatic diseases. The post offers excellent opportunities for independent work and for collaboration with the existing Cellular Biology, Clinical Immunology, Biochemistry, and Experimental Pathology Divisions, and with the Immunogenetics Laboratory.

Remuneration will be within ranges III or IV of the Research and Analogous Staff scales of the University of London.

Further details can be obtained from: The General Secretary, Mathilda and Terence Kennedy Institute of Rheumatology, 6 Bute Gardens, London, W6 7DW, England (telephone: 01-748-9966), to whom letters of application, including curriculum vitae and the names of three referees, should be sent by 22 December 1980.

Interviews will be conducted in the new year with a view to filling the post by 1 October 1981 or earlier.

CELL BIOLOGIST-Salary: \$25,620. Work in dynamics of cytoskeletal proteins. Experience molecular biology/cell-free protein synthesis/monoclonal antibodies/protein chemistry preferred. Bachelor's plus 4, master's plus 3, Ph.D. plus 2 years of experience. Send résumé and references to: Personnel, Position Number 193, New York State Institute for Basic Research, 1050 Forest Hill Road, Staten Island, N.Y. 10314. Affirmative Action/Equal Opportunity Employer, M/F.

CHAIRPERSON. Department of Biochemistry— Candidates must have substantial background in academic medicine evidenced by a record of excellence in teaching, research, and leadership in medical and graduate education. Interested persons are encouraged to submit their credentials and curriculum vitae to: Dr. Donald E. Hill, Chairman, Biochemistry Search Committee, Slot 512, University of Arkansas College of Medicine, University of Arkansas for Medical Sciences, 4301 West Markham Street, Little Rock, Arkansas 72201. Affirmative Action/ Equal Opportunity Employer.

CLINICAL CHEMIST

The Department of Laboratories at the Long Beach Veterans Administration Medical Center, a 1250-bed facility, is currently seeking a Board-certified pathologist with expertise in clinical biochemistry to direct the Biochemistry Section of the clinical laboratories. A joint appointment with the associated University of California, Irvine, will be provided commensurate with academic accomplishments. Excellent opportunities for research and teaching are available. An Affirmative Action Employer. Send curriculum vitae and references to: S. T. Nerenberg, M.D., Ph.D., Chief of Laboratory Service, VA Medical Center, 5901 East 7 Street, Long Beach, Calif. 90822, by 29 December 1980.

DIRECTOR REHABILITATIVE ENGINEERING R & D VETERANS ADMINISTRATION

The Veterans Administration seeks qualified candidates for the position of director, Rehabilitative Engineering Research and Development Service (RER & DS). Director is responsible for nationwide program of R & D in devices, techniques, and concepts of rehabilitation encompassing areas of prosthetics, orthotics, spinal cord injury, sensory and mobility aids. RER & DS supports over 70 research projects budgeted at \$9 million in FY 81. Experience in rehabilitative engineering and in management of R & D programs are both essential. Applicants must be licensed to practice medicine. U.S. citizenship required. This is an excepted service position with base salary to \$50,112 per annum and bonus pay to \$27,500. Initial appointment is for 4 years, subject to extension. Submit curriculum vitae to: Richard J. Greene, Ph.D., M.D., Chairman, **Search Committee (153), Veterans Administration, 810 Vermont Avenue, NW, Washington, D.C. 20420, or telephone: 202-389-2666. Application deadline: 31 December 1980. The Veterans Administration is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

Carnegie-Mellon University invites applications for a tenure-track faculty position in CHEMICAL PHYS-ICS. Outstanding candidates active in any area of fundamental physical magnetic resonance spectroscopy related to chemical or molecular science are encouraged to apply. Carnegie-Mellon University is an Equal Opportunity Employer and adheres to Affirmative Action hiring policies. Applications from women and minority candidates are most welcome. Please write, submitting curriculum vitae, list of publications, reprints of representative papers, and at least two letters of reference, to:

Professor Miguel Llinás Chairman, Search Committee Department of Chemistry Carnegie-Mellon University Pittsburgh, Pa. 15213

Carnegie-Mellon University invites applications for a tenure-track faculty position in PHYSICAL CHEM-ISTRY. Outstanding candidates active in any area of fundamental physical research related to chemical or molecular science are encouraged to apply. Carnegie-Mellon University is an Equal Opportunity Employer and adheres to Affirmative Action hiring policies. Applications from women and minority candidates are most welcome. Please write, submitting curriculum vitae, list of publications, reprints of reference, to:

> Professor Miguel Llinás Chairman, Search Committee Department of Chemistry Carnegie-Mellon University Pittsburgh, Pa. 15213

CLINICAL RESEARCH COORDINATOR—The Ophthalmology Department of the School of Medicine at Emory University is seeking a coordinator for funded national, multicenter, university-based trial of eye surgery. Individual must be able to work independently and coordinate well with physicians and biostatistical colleagues. Minimum requirements: master's degree in public health, Ph.D. in clinical epidemiology or equivalent experience in coordination of clinical trials, including project design with randomization and control patients, population maintenance, and monitoring of accurate longterm data collection. Position requires 5-year commitment and travel. To apply, send letter of application, résumé, and names and addresses of three professional references to: Emory University, Employment Center, Trimble Hall, Atlanta, Ga. 30322. An Equal Opportunity/Affirmative Action Employer

CANCER CENTER DIRECTOR. Medical scientist with experience in research, teaching, administration, and patient care to head diversified group of medical school faculty members with a common interest in oncology. NCI-funded center. Applicant should have at least 15 years of postdoctoral experience, an established reputation in the field, and presently be at senior academic rank. Affirmative Action/ Equal Opportunity Employer. Send credentials to: R. W. Prichard, M.D., Wake Forest University, Bowman Gray School of Medicine, Winston-Salem, N.C. 27103.

ELECTRON MICROSCOPIST, Ph.D., with diagnostic or research experience in anatomy or pathology, technically expert in electron microscopy, wanted for private medical school affiliated hospital. Primary duty in diagnostic surgical pathology and cytology, with opportunity for teaching and clinical research. Salary open, excellent benefits. Submit inquiries with curriculum vitae to: W. H. Kern, M.D., Director, Department of Pathology, Hospital of the Good Samaritan, 616 South Witmer Street, Los Angeles, Calif. 90017.

ENVIRONMENTAL STUDIES—Acting director of interdisciplinary program in a liberal arts college for women, academic year 1981–1982 only. Responsibilities include coordination of a team-taught core course in the fall semester, its sequel in the spring, another course (applicants should specify preference) in the fall, and the senior seminar in the spring. In addition to classroom teaching, the acting director will supervise a student-managed water quality surveillance project; this latter duty will commence 1 July 1981. Doctorate preferred but not required. Rank and salary open. Address letter and résumé to: Director, Environmental Studies Program, Drawer Z, Sweet Briar College, Sweet Briar, Va. 24595. Sweet Briar College is an Equal Opportunity Employer.

ECOLOGIST

The Department of Biology at West Virginia University invites applications for a tenure-track apversity invites applications for a tenure-track ap-pointment at the rank of assistant professor in the area of ecology. This appointment is contingent up-on funding and would be available 16 August 1981. The applicant must: (i) be able to teach an under-graduate core course in modern ecology and popu-lation biology, and a graduate course in his/her area of specialization, (ii) participate in graduate educa-tion and training, and (iii) demonstrate potential for establishing a strong research program. Postdoctoral experience preferred. Please submit, before 1 Febru-ary 1981. curriculum vitae. copies of recent pubary 1981, curriculum vitae, copies of recent publications, names of three references, and a description of future research plans to: Ecologist Search Committee, Department of Biology, West Virginia University, Morgantown, West Virginia 26506. An Equal Opportunity/Affirmative Action Employer.

EXECUTIVE DIRECTOR OF PROFESSIONAL AS-SOCIATION. The American Water Resources Association (AWRA) solicits applications for the position of executive director. With headquarters in Minne-apolis, at the St. Anthony Falls Hydraulic Laborato-ry, University of Minnesota, AWRA is a multidisciplinary professional organization dedicated to the advancement of water resources research, planning, development, management, and education. Its bimonthly publication, the Water Resources Bullebimonthly publication, the Water Resources Bulle-tin, is recognized as a leading technical journal in the field and provides an outlet for papers in all aspects of water resources. Applicants should have adminis-trative or managerial abilities and experience. Train-ing and background in a water related field are desir-able. Salary is commensurate with qualifications and experience. Send résumé and names of three refer-ences, no later than 15 January 1981, to: William R. Boggess, General Secretary AWRA, Laboratory of Tree-Ring Research, University of Arizona, Tucson, Arizona 85721. An Equal Opportunity Employer.

FACULTY APPOINTMENT. The Department of Microbiology, College of Medicine, has an opening for an assistant professor. Responsibilities include teaching graduate and medical students. Preference teaching graduate and medical students. Preference will be given to candidates who will develop a strong research program in the control of gene expression or gene organization in prokaryotes, eukaryotes, or viruses. Use of recombinant DNA techniques is es-pecially desirable. Postdoctoral experience is re-quired. Send curriculum vitae and three references to: Dr. Paul S. Sypherd, Department of Microbiology, University of California, Irvine, College of Medicine, Irvine, Calif. 92717. An Affirmative Action Employ-er.

FACULTY POSITION in physical chemistry or chemical physics. Applications or nominations are invited for an opening in the Department of Chemis-try at Massachusetts Institute of Technology (MIT). Applicants should have demonstrated ability to do outstanding independent research in chemistry and show promise of excellence in teaching. Appoint-ment will probably be at the assistant professor lev-el, but applications and nominations for other levels will be considered. Candidates should submit cur-riculum vitae, a publications list, a description of re-search interests, and have three letters of recom-mendation sent not later than 15 February 1981 to: Professor J. L. Kinsey, Room 18-399, MIT, Cam-bridge, Mass. 02139. MIT is an Equal Opportunity/ Affirmative Action Employer.

The Department of Electrical Engineering of Stanford University invites applications for a FACULTY POSITION for research and teaching in the combined area of radioscience and either information systems or computer systems. Research in radio-science currently includes ionospheric and magnetospheric radio, radio and radar astronomy, planetary radioscience, radar oceanography, communication radioscience, radar oceanography, communication satellite systems, tropospheric propagation, and so-lar-terrestrial relationships. Applicants should have background in radio and space science and also in one or more other areas such as signal processing, communication systems, computer systems, analog and digital instrumentation, and analytical and com-putational techniques. All faculty levels will be con-sidered for a position beginning with the fall quarter 1981 1981

Stanford University is an Affirmative Action/ Equal Opportunity Employer, and welcomes appli-cations from women and minority groups.

Please submit as soon as possible detailed ré-sumés, including names of references, to: Professor Robert A. Helliwell, Department of Electrical Engi-neering, Stanford University, Stanford, Calif. 94305.

21 NOVEMBER 1980

POSITIONS OPEN

FACULTY POSITION, IMMUNOLOGY. The Department of Microbiology, College of Medicine, has an opening at the assistant or associate professor level. Responsibilities include teaching graduate and medical students. Candidates would be expected to develop a strong research program involving fundadevelop a strong research program involving funda-mental biochemical or genetic studies in an area of immunology Applicants with substantial training or research experience in biochemistry and molecular biology are preferred. Postdoctoral experience is re-quired Send curriculum vitae and references to: Dr. Paul S Sypherd, Department of Microbiology, Uni-versity of California, Irvine, College of Medicine, Ir-vine, Calif. 92717. An Affirmative Action Employer.

FACULTY POSITION CORNELL UNIVERSITY

Assistant professor of natural resources, available July 1981 Research and teaching with resources, available icy and planning emphasis. Prefer forestry back-ground. Tenure-track Ph.D. required. (Assistant professors with one or more years experience are protessors with one or more years experience are encouraged to apply as well as those expecting to receive a Ph D. before 1 July 1981.) Closing date for applications: 15 January 1981. Contact: Dr. B. J. Wilkins, Chairman, Search Committee, Department of Natural Resources, New York State College of Ag-riculture and Life Sciences, Ithaca, N Y. 14853. Cornell University is an Equal Opportunity/Affir-mative Action Employer.

UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

Applicants are solicited for a faculty position in the following department:

MICROBIOLOGY (Number 265)-Medical micro-MICROBIOLOGY (Number 265)—Medical micro-biologist; adjunct assistant or associate professor. A temporary 12- to 18-month position beginning 1 Jan-uary 1981. Ph. D. with teaching experience essential. Postdoctoral experience desirable. Primary respon-sibilities: graduate, medical, and dental student in-struction. Research opportunities available. Salary and rank commensurate with ability and experience and rank commensurate with ability and experience Applications accepted until 1 January 1981.

Applicants should send curriculum vitae, identifying Applicants should send curriculum vitae, identifying vacancy number for which they are applying, to: Thomas N. Lynn, M.D., 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 Biology Department, Southwest Texas State University, announces a FACULTY POSITION in mammalian or environmental physiology and tox-icology open for the 1981 fall semester. This is a tenrequires the Ph.D. degree. Responsibilities of the position include coordinating human anatomy and physiology laboratories; teaching human anatomy and physiology, toxicology, and general biology; thesis supervision on the M.S. level; and individual research in the field of toxicology. research in the field of toxicology. Applicants for-ward curriculum vitae, official transcripts, and at least three letters of recommendation prior to 5 Jan-uary 1981 to: Dr. H. H. Hannan, Chairman, Biology Department, Southwest Texas State University, San Marcos, Texas 78666. An Equal Opportunity/Affirmative Action Employer.

THE UNIVERSITY OF IOWA

FACULTY POSITION IN BIOCHEMISTRY-The department invites applications and nominations for a faculty position that will become available 1 July 1981, at the level of assistant, associate, or full pro-fessor. Responsibilities will include participation in 1981, at the level of assistant, associate, or full pro-fessor. Responsibilities will include participation in the department's teaching programs for under-graduate, graduate, and professional students and the development of a vigorous independent program of scholarly research. Applicants must hold a doc-toral degree and preferably should have postdoctoral or previous faculty experience. Outstanding appli-cants with expertise in any area of biochemistry or closely related disciplines will be considered, and we expect that the new appointee will complement the expertise of our current faculty *Women and mi-nority candidates are especially encouraged to ap-ply*. Applicants should indicate the rank for which they wish to be considered and send curriculum vitae, including a list of publications and summary of future research plans, as well as the names and ad-dresses of three individuals who may be contacted for letters of reference, to: Dr. Bryce V. Plapp, Chairman, Faculty Search Committee, Department of Biochemistry, The University of Iowa, Iowa City, Iowa 52242. The University of Iowa is an Equal Op-portunity/Affirmative Action Employer.

POSITIONS OPEN

FOOD MICROBIOLOGIST. The Department of Food Science, North Carolina State University, is inviting applications for a tenure-track assistant pro-fessor position in food microbiology. This research (80 percent) and teaching (20 percent) position is available as soon as a qualified applicant is secured. Salary will be commensurate with qualifications and experience. Applicants should possess a Ph.D. in microbiology or food science with a demonstrated interest in food microbiology. Responsibilities include establishment of a research program in the general area of spores and microbial physiology and their relationship to food processing. Applicants should send résumé, transcripts, and have three letters of reference sent to:

Dr. Harold E. Swaisgood Department of Food Science North Carolina State University Raleigh, N.C. 27650

Application deadline is 31 December 1980.

An Equal Opportunity/Affirmative Action Employer

IMMUNOLOGIST. Postdoctoral position available immediately for in vivo and in vitro studies of the immunologically active hormone-like peptide, tuft-Immunologically active hormone-like peptide, tuft-sin. Background in cellular or tumor immunology preferred. Send résumé and the names of three ref-erences to: Dr. Kenji Nishioka, Surgical Research Laboratory, BF-426, The University of Texas System Cancer Center M. D. Anderson Hospital and Tumor Institute, Houston, Texas 77030. An Equal Opportu-nity Employer.

NEUROIMMUNOLOGY POSTDOCTORAL

Intensive and basic research training related to bio-chemical, genetic, and immunopathologic determiavailable 1 July 1981. Send application to:

Dr. Philip Y. Paterson Dr. Finip 1. rate: son Microbiology-Immunology Department Northwestern University Medical Center 303 East Chicago Avenue Chicago, Illinois 60611

DEANSHIP

COLLEGE OF AGRICULTURE UNIVERSITY OF WISCONSIN-RIVER FALLS

POSITION: Dean, College of Agriculture. Twelve-month appointment with a 1 July 1981 starting date. **RESPONSIBILITIES:** Administration and responsibility for all academic, extension, and research programs within the College of Agriculture.

QUALIFICATIONS: Earned doctorate in agriculture related field, college teaching experience, adminis-trative experience, experience in research and/or ex-tension, as well as interest in statewide agricultural programs.

SALARY: \$45,000 to \$50,000, depending upon qualifications

The University of Wisconsin-River Falls is a non-land grant institution located in west central Wisconand grant institution located in west central wiscon-sin, 28 miles from St. Paul, Minnesota. It consists of a College of Arts and Sciences, College of Educa-tion, College of Agriculture, Division of Student Af-fairs, and a Graduate School. The 1980-1981 univer-sity enrollment is 5300 with 325 faculty members.

The College of Agriculture is divided into five aca-demic departments: Agricultural Economics, Agri-cultural Education, Agricultural Engineering Tech-nology and Industrial Education, Animal and Food Science, and Plant and Earth Science. In recent years, student enrollment in the College of Agricul-ture here here increasing of the rote of object 12.5 per ture has been increasing at a rate of about 12.5 per-cent per year, with a current total of 1865 majors and 53 faculty members and academic staff.

Send letter of application, curriculum vitae, and three current letters of recommendation to: Dr. Vern Elefson

Dr. Vern Eleison Chairman, Search and Screen Committee College of Agriculture University of Wisconsin-River Falls River Falls, Wisconsin 54022

Deadline for application is 1 January 1981 An Equal Opportunity/Affirmative Action Employer

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Two full-time tenure-track positions open in Depart-ment of Zoology: GENETICIST and VERTEBRATE MORPHOLOGIST. Positions open beginning Au-gust 1981. Ph.D. required. Teaching experience de-sirable. Applicants must have a strong commitment to teaching in a small liberal arts college environ-ment. The courses to be taught by the successful apment. The courses to be taught by the successful ap-plicants will include genetics, biochemistry, human anatomy (primarily for nursing students), com-parative vertebrate anatomy, and embryology. Ap-plicants must be broadly trained in zoology because they will also be expected to participate in the in-troductory courses. Send résumé, transcripts, and three letters of recommendation to: Dr. Charles E Mays, Chairman, Search Committee, Department of Zoology, DePauw University, Greencastle, Indiana 46135. Applications received by 15 January 1981 will receive fullest consideration.

An Equal Opportunity/Affirmative Action Employer

### IMMUNOLOGIST—IMMUNOCHEMIST BIOLOGICAL CHEMISTRY

Immediate opening for recent Ph.D. graduate as postdoctoral research associate/instructor to participate in challenging research on the regulation and control of the antibody response, at modern urban research center. A competitive stipend will be of-fered. Send curriculum vitae and names and addresses of three references to: Dr. Bernard Friedenson, Department of Biological Chemistry, University of Il-linois at the Medical Center, 1853 West Polk Street, Chicago, Illinois 60612.

Equal Opportunity/Affirmative Action Employer

University of Michigan Medical School, Department of Internal Medicine, Division of Gastroenterology, has a position available at the INSTRUCTOR THROUGH PROFESSOR level. Applicant must have a commitment to full-time academic medicine in either the clinical or research track at the University of Michigan Hospital. Board-certified and/or sity of Michigan Hospital. Board-certified and/of eligible in internal medicine and gastroenterology. Record of productivity in creative scholarly re-search, evidence of capacity to initiate an indepen-dent research program, dedication to teaching and the care of patients, and independent patient care activi-ties. Applicants should reply to: Keith Henley, M.D., Division of Gastroenterology, R6592 Kresge I, Box 022, University Hospital, Ann Arbor, Mich. 48109. A pandiscriminator. Employer nondiscriminatory, Affirmative Action Employer Code 116BO.

MAMMALOGIST—Applications are invited for a curatorial position in the Division of Mammals of Field Museum of Natural History. The position involves both research and curatorial responsibilities, is full-time and on a 12-month basis, and is scheduled to begin in early 1981. Applicants must have a Ph.D. with primary interest in and commitment to systematic mammalogy in the broadest sense and to the curation of a major mammal collection. Other duties may involve participation in exhibition and duties may involve participation in exhibition and education functions of Field Museum. Opportunities exist for work with graduate students. The condi-tions of appointment, including salary and rank, are dependent on qualifications and experience. Cur-riculum vitae, description of research experience riculum vitae, description of research experience and future plans, reprints of publications, and letters from three referees must be sent by 15 January 1981 to: Dr. Robert K. Johnson, Chairman, Search Com-mittee, Department of Zoology, Field Museum of Nat-ural History, Roosevelt Road at Lake Shore Drive, Chicago, Illinois 60605.

An Equal Opportunity Employer

VERTEBRATE NEUROBIOLOGIST. Tenure-track position as assistant/associate professor rank avail-able September 1981 in CNS neurology. The appoin-tee will be expected to develop an independent research program in such areas of neuroscience as integration of motor sensory activity, locomotor control, or development of the vertebrate CNS. Evi-dence of strong research activity and productivity is essential. Other responsibilities include participation in team-taught courses in neurobiology and animal buviology (graduate and undergraduate). A Bb D physiology (graduate and undergraduate). A Ph.D. degree or equivalent is required. Preference will be given those with teaching, postdoctoral experience, or the demonstrated ability to obtain extramural sup-port. Faculty rank and salary will be commensurate with experience. Send curriculum vitae, a statement of research plans, and include at least three names of references by 5 December 1980 to: Professor G. R. Pilar, Physiology Section, U-42, Biological Sciences Group, The University of Connecticut, Storrs, Con-necticut 06268.

Equal Opportunity Employer

### POSITIONS OPEN

MICROBIAL GENETICS/BIOCHEMISTRY postdoctoral position available early 1981 for enzymolo-gist interested in molecular biology to work on transposon mutagenesis and regulation of isoleucine-valine biosynthesis in *E. coli* and *S. typhimurium*. Salary: \$13,000. Send curriculum vitae and names of references to: Dr. Claire M. Berg, Box U-131, Biolog-ical Sciences, University of Connecticut, Storrs, Connecticut 06268.

Equal Opportunity Employer

#### MICROBIOLOGIST

The Department of Laboratories at the Long Beach Veterans Administration Medical Center, a 1250-bed facility, is currently seeking a Board-certified pathol-ogist with expertise in clinical microbiology to direct the Microbiology Section of the clinical laboratories. A joint appointment with the associated University of California, Irvine, will be provided commensurate with academic accomplishments. Excellent opportu-nities for research and teaching are available. An Af-firmative Action Employer. Send curriculum vitae and references to: S. T. Nerenberg, M.D., Ph.D., Chief of Laboratory Service, VA Medical Center, 5901 East 7 Street, Long Beach, Calif. 90822 by 29 December 1980.

### DEPARTMENT OF MOLECULAR BIOLOGY VANDERBILT UNIVERSITY

A tenured faculty position is available for a pro-ductive investigator in the biophysical aspects of molecular biology. The rank is dependent on qualifi-cations. Candidates should have a noteworthy re-search program. Please send informal inquiries or curriculum vitae, list of publications, and letter about research and teaching interests to: **Dr. Oscar** Touctore Chairman Dependence of McLorelez Biol about research and teaching interests to: Dr. Oscar Touster, Chairman, Department of Molecular Biol-ogy, Box 1820, Station B, Vanderbilt University, Nashville, Tenn. 37235. An Affirmative Action/Equal Opportunity Employer.

### THE DEPARTMENT OF ZOOLOGY of the University of California, Davis announces the opening of a faculty position of NEUROBIOLOGIST

The Department of Zoology, University of California, Davis, currently has a tenure-track opening for a neurobiologist with interests in cellular approaches to understanding the functions and organization of nervous systems. Level of appointment dependent on qualifications. Teaching duties will include an up-per division course in neurobiology and an in-troductory biology course. Send curriculum vitae, a troductory biology course. Send curriculum vitae, a description of research programs and future plans, a summary of teaching experience and capabilities, the names and addresses of three referees, and cop-ies of publications to: **Dr. John H. Crowe, Chair**, Search Committee, Department of Zoology, Universi-ty of California, Davis, Calif. 95616. Screening of ap-plications will begin 2 January 1981; closing date for receipt of applications is 15 January 1981. The Uni-versity of California is an Equal Opportunity/Affir-mative Action Employer.

**POSTDOCTORAL POSITION** to study the patho-genesis of *Treponema pallidum* disease including surface characteristics of the spirochete and bio-chemical-molecular properties of the host-parasite interaction. Send curriculum vitae and letters of ref-erence to: Joel B. Baseman, Department of Microbiology, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, Texas 78284. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL and/or TECHNICAL. Two positions in visual psychophysics/computer image pro-cessing available immediately. Qualifications in-clude programming and hardware skills in both pixel and vector computer graphics systems, sophisti-cation in spatial and temporal frequency analysis, and interest in higher-order perception in humans. Please send résumé and three references to: Dr. Naomi Weisstein, State University of New York at Buffalo, 4230 Ridge Lea Road, Buffalo, N.Y. 14226.

POSTDOCTORAL POSITION available after 1 Jan-**POSTDOCTORAL POSITION** available after 1 Jan-uary 1981 to study aspects of genetic recombination in *E. coli* and bacteriophages. Analysis of depen-dence of enzymatic requirements on particular pa-rental structures used, and development of in vitro assays. Analysis of cellular functions involved in transposition. Send curriculum vitae and names of references to: K. B. Low, Radiobiology Laboratories, Yale University School of Medicine, New Haven, Con-necticut 06510.

### POSITIONS OPEN

NEUROLOGIST-IMMUNOLOGIST, assistant/as sociate professor with background in basic immunol-ogy to interact with established virology-immunol-gy group beginning July 1981. Candidate should be interested in M.S., ALS, and myasthenia gravis pa-tients. Please send curriculum vitae and two letters tients, Please send curriculum vitae and two letters of recommendation to Dr. Leslie P. Weiner, Chair-man and Professor, Neurology, University of South-ern California School of Medicine, McKibben Annex, Room 142, 2025 Zonal Avenue, Los Angeles, Calif, 90033. An Affirmative Action/Equal Opportunity Employer.

#### NEUROPATHOLOGISTS

The Pathology Department of the University of California, Irvine, and the Long Beach Veterans Admin-istration Medical Center are jointly seeking the ser-vices of two Board-certified neuropathologists for their conjoined programs in neuropathology. As-signed academic rank will be commensurate with ex-perience and academic accomplishments. Excellent perience and academic accomplishments. Excellent opportunities for scholarly activities, service, and research are available. An Affirmative Action Em-ployer. Send curriculum vitae and references to: S. T. Nerenberg, M.D., Ph.D., Chief of Laboratory Service, Long Beach VA Medical Center, 5901 East 7 Street, Long Beach, Calif. 90822 by 29 December 1980 1980.

### NUTRITIONISTS

Nutritional biochemists—one established scientist and two postdoctoral positions available 1 March 1981. Unique opportunity for experimental nutri-tionists with interest in the chemical senses (taste and olfaction). All positions require a Ph.D. in nutri-tional biochemistry, nutrition, or public health. Can-didate for senior level position must have post-doctoral experience and/or demonstrated research record. Applicants with training in the areas of trace minerals, hypertension, prostaglandins, or cephalic phases of digestion are of special interest. Other areas of basic or clinical research will also be consid-ered. Potential for postdoctoral to develop into perered. Potential for postdoctoral to develop into per-manent staff position. The Center offers new laboratory facilities in a multidisciplinary research envi-ronment. Competitive salary commensurate with experience. Send curriculum vitae, a recent pub-lication relevant to area of interest, and three letters of reference to:

Chairman of Search Committee Monell Chemical Senses Center 3500 Market Street Philadelphia, Pa. 19104 Equal Opportunity Employer

PATHOLOGY FACULTY POSITIONS—Faculty positions available immediately at associate, instructor, assistant professor, associate professor, and professor level.

Qualifications: must have a M.D. degree, Board-eli-Qualifications: must have a M.D. degree, Board-eli-gibility or equivalent. Must be eligible for Iowa med-ical license. Responsibilities will be in teaching, re-search, and service. All areas of academic pathology may apply; however, specific areas of interest are surgical pathology, clinical chemistry, clinical mi-crobiology, transfusion service, and autopsy pathol-ogy. Salary is commensurate with training and expe-rience. Excellent fringe benefits.

Qualified applicants send letter referring to this anis requested along with areas of interest; curriculum vitae, and three letters of recommendation to:

Richard Lynch, M.D. c/o Department of Pathology Room 144, Medical Laboratories Building University of Iowa College of Medicine Iowa City, Iowa 52242

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

#### **RESEARCH SCIENTIST, SG-25**

Research scientist needed for program on alcohol research with women. Experience in human behav-ioral and alcohol laboratory research required. Prov-en writing and data analysis skills necessary. Gradu-ate degree plus minimum of 3 years of experience in the field. Permanent position. Salary: \$25,420. Send curriculum vitae to:

**Personnel Office** Research Institute on Alcoholism 1021 Main Street Buffalo, New York 14203 Attention: Dr. Marcia Russell Affirmative Action/Equal Opportunity Employer

SCIENCE, VOL. 210

## SENIOR RESEARCH CHEMIST

Expansion of our Drug Metabolism Department has created an industrial career opportunity at the Ph.D. level for a professional in analytical chemistry. The ideal candidate will have at least 2 years of experience beyond the doctoral level dealing with pharmacokinetics and the determination of drugs in biological fluids in addition to a sound background in instrumentation technology.

If you would like to be considered for this professionally challenging responsibility in a growth-oriented company offering excellent salary and benefits and located in a southern metropolitan environment, send résumé and salary requirements in confidence to:

> Manager of Personnel Placement Ă. H. Robins Company 1407 Cummings Drive Richmond, Virginia 23220

An Equal Opportunity Employer, M/F

(to be based in West Africa and at ICRISAT Center, Hyderabad, India)

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Responsible for collection, analysis, and interpretation of research information in management of natural resources and for evaluation of representative farming systems for the region. Qualifications: doctorate with an excellent academic vith substantial formal training in hydrology: proven ability for teamwork with other scientists in interdisciplinary research programs. Experience in agricultural al research relevant to less-developed countries of the semiarid tropics and at least 7 years of postdoctoral research experience. Ability to speak and write French would be advantageous for the West African post. Fluency in English desirable for the post in India.

INTERNATIONAL CROPS RESEARCH INSTITUTE

FOR THE SEMIARID TROPICS (ICRISAT) near Hyderabad, India needs the following personnel

SOIL AND WATER ENGINEERS (TWO)

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3XC

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### PLANT BREEDER (GROUNDNUTS) (to be based in eastern/central Africa)

Responsible for planning and conducting research to develop varieties and ad-vanced breeding materials in cooperation with a team of international scientists. Qualifications: Ph.D. in plant breeding, with excellent academic record; re-search experience in plant breeding, preferably of groundnuts, as evidenced by publications/reports. Experience in organization and coordination of research. Knowledge of modern techniques in crop improvement and experience in semi-arid tropics would be advantageous. Bilingual ability in English and French pre-ferred ferred.

### PLANT PATHOLOGISTS (TWO) (to be based in East and West Africa)

One each for groundnuts and pearl millets. Responsible to plan and conduct research in cooperation with a multidisciplinary team of international scientists. Research will be problem-solving and field-oriented but requires knowledge of modern laboratory techniques. Qualifications: a doctorate with excellent academic record, demonstrated scientific ability through formal publications, and relevant work experience after postgraduation. Fluency in French desirable for West African post West African post

### SOIL SCIENTIST (to be based in West Africa)

Responsible to initiate and conduct a research program to elucidate the water and nutrient (especially nitrogen) interactions in soils of the West African Southern-Sahel and Sudanian bioclimatic zones (75 to 90 and 90 to 165 days growing period, respectively) with particular emphasis on studying water and nutrient movement in the soil in relation to cropping systems, soil type, climate, and seasonal weather. Qualifications: a doctorate with excellent academic rec-ord and a sound understanding of physical and chemical processes in soil; 7 wears of postdoctoral research appreciate processes in soil; 7 years of postdoctoral research experience. Fluency in French desirable.

### ENTOMOLOGIST (GROUNDNUTS) (to be based at ICRISAT Center, Hyderabad, India)

Responsible to identify the insect problem in SAT and to determine the approaches whereby short- and medium-term research is likely to be most fruitful. Expected to conduct pest surveys and loss assessment and formulate programs of work leading to control of pests on groundnut crops. Will work in close association whereby the surveys and loss assessment and formulate programs of work leading to control of pests on groundnut crops. ciation with national agricultural research programs and have an important in-put, particularly in host-plant resistance studies, to the ICRISAT Center program. Research experience in tropical or developing countries desirable. Quali-fications: Ph.D. in entomology with an excellent academic record evidenced through formal publications and scientific papers. Should have experience in research in insect ecology and integrated pest management, experience in research work on legumes in a tropical country, and an interest in host-plant resis-tance and virus/vector relationships.

### PLANT PATHOLOGIST (CHICK-PEA) (to be based at ICARDA, Aleppo, Syria)

(to be based at ICARDA, Aleppo, Syria) Responsible to work, in cooperation with other scientists, on diseases of chick-pea which are important in reducing yields. The research effort will be directed principally at the identification and utilization of stable host-plant resistance and the pathologist will collaborate closely in breeding work. Both laboratory and field research will be involved and the scientist will be expected to travel region-ally and conduct off station trials. Qualifications: Ph.D. in plant pathology with an excellent academic record and specialization in the pathology of legumes. Sound knowledge of the principles of plant breeding, preferably with practical experience in a breeding team. Significant experience, as evidenced by scientific publications and reports, and evidence of the ability to identify resistance to disease and utilize these in crop improvement. Experience in plant pathological problems in a developing country, preferably in the tropics desirable.

Salaries for all of the above positions commensurate with qualifications and experience; excellent fringe benefits.

Send résumé within 90 days of publication to: Director General, ICRISAT, Pa-tancheru P.O., Andhra Pradesh 502 324, India.

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Research Laboratories has immediate need for individuals to participate in the development of research programs in molecular genetics, with a strong emphasis on recombinant DNA technology.

- 1. Senior Molecular Biologist (Ph.D.) with postdoctoral experience in nucleic acid enzymology. This position requires experience in enzyme purification and reaction mechanisms.
- 2. Senior Molecular Biologist (Ph.D.) with postdoctoral experience in DNA cloning in yeasts and/or fungi.
- 3. Senior Molecular Biologist (Ph.D.) with postdoctoral experience in DNA cloning in prokaryotic species.
- 4. Associate Biologists (M.S. or B.S.) with experience in nucleic acid biochemistry, molecular genetics, or nucleotide chemistry.

Send résumé with salary requirements to:

Peter D. Cullen Senior Personnel Representative Eli Lilly and Company 307 East McCarty Street Indianapolis, IN 46285

> **Lilly Research Laboratories** A Division of Eli Lilly and Company An Equal Opportunity Employer M/F

Lilly

OCEAN SCIENCES CENTER has positions open at all academic levels in physical oceanography and other oceanographic disciplines. We are especially interested in experimental physical oceanographers. A demonstrated capacity for outstanding research in either theoretical or experimental oceanography is essential. Project support from contracts and grants is required of all faculty members. Send curriculum vitae and names of three academic references to: Dr. Julian P. McCreary, c/o Personnel Department, Nova University, College Avenue, Fort Lauderdale, Florida 33314. Affirmative Action/Equal Opportunity Em-lower ployer

#### PHARMACOLOGIST-TOXICOLOGIST

Applications are invited from qualified individuals for a unique position of research assistant professor in the Department of Biochemical Pharmacology and Toxicology, University of Utah. The primary responsibility of the appointee will be to teach a course entitled "Common Medicines" to undergraduate students in the university. This course, which is of-fered three times a year, provides the nonhealth science student with an appreciation of the appropriate use of prescription and nonprescription drugs. Op-portunities will also be provided the appointee to in-struct in the graduate program that is funded by an with training grant in pharmacology and toxicology and to carry out independent research. Interested applicants should send curriculum vitae and the names of three references to:

### Dr. James W. Gibb, Chairman Department of Biochemical Pharmacology and Toxicology University of Utah Salt Lake City, Utah 84112

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

firmative Action Employer. PHYSIOLOGIST (research)—Associate (salary de-pendent on experience). Required to work on the de-velopment of a computerized system of single breath tests to measure pulmonary function during weight-lessness. Applicant should have a good training in pulmonary physiology, experience with computers and data processing, experience in the aerospace in-dustry, and familiarity with processing forms for government research. Please send curriculum vitae and three confidential reference letters. The Univer-sity of California is an Equal Opportunity/Affirma-tive Action Employer. Dr. John B. West, Department of Medicine, M-023, University of California, San Diego, La Jolla, Calif. 92093.

PLANT SCIENTIST. Applications are invited for a tenure-track teaching position in biology to begin 15 August 1981. Candidates should have broad training August 1981. Candidates should have broad training in cells through organisms to populations and teach-ing skills in electron microscopy, both TEM and SEM. Send letter of application, curriculum vitae, transcripts, and three letters of reference by 15 Janu-ary 1981 to: Dr. Dean Dillery, Biology Department, Albion College, Albion, Mich. 49224. An Equal Op-portunity Employer.

**POSTDOCTORAL POSITION** available January 1981 for studies of the regulatory control of transformation and tumorigenicity in human cells. Research will include chromosome and DNA-mediated gene transfer. Experience in molecular genetics and/or cytogenetics preferred. Please send curriculum vitae and names of three references to: Dr. Eric Stan-bridge, Department of Microbiology, University of California, Irvine, Calif. 92717. Affirmative Action Employer

POSTDOCTORAL POSITION to study the immunology of leprosy. Expertise in cellular immunology and biochemical techniques required. Send curriculum vitae and three references. Reply to:

Box 275, SCIENCE

POSTDOCTORAL/RESEARCH ASSOCIATE POSI-**TION**. Available 1 January 1981 for research in the molecular and cell biology of the mitosis to  $G_1$  transition in synchronized HeLa and adeno2 transformed tion in synchronized HeLa and adeno2 transformed cells. Studies include survival and fate of cyto-plasmic mRNP particles and reassembly of the nucleus and of the nuclear envelope. Salary range: \$11,000 to \$14,000 annually, for a 2-year position. Send curriculum vitae and names of three refer-ences to: Dr. L. D. Hodge, Department of Cell and Molecular Biology, Medical College of Georgia, Augusta, Ga. 30912. An Equal Opportunity/Affirma-tiva Action Employer tive Action Employer.

### POSITIONS OPEN

### POLAR OCEANOGRAPHER/ SEA ICE DYNAMICIST

A position is available under the Intergovernmental Personnel Act of 1970 for persons now employed in state/local government or in colleges and universities. This position is located within the Oceanic Processes Branch of the Environmental Observation Division of the Office of Space and Terrestrial Appli-cations, NASA Headquarters. The position is for 1 year, with the possibility for renewal for an addition al year. Pay will be at a level commensurate with experience, and will be established after a review of qualifications.

Candidates must have been employed by the univer-sity in a permanent position for at least 90 days or be a career employee of a state or local government. Candidates must also meet the federal qualification standards for the position. These are as follows: a degree in an appropriate field of science, plus 3 years of progressively responsible experience in duties related to the position.

This individual will be responsible for planning, de-veloping, and implementing a scientific research program in satellite remote sensing of oceanic processes in polar regions. A background in polar oceanography, sea ice dynamics, or a closely related field is required; experience in remote sensing, although desirable, is not essential. A Ph.D. or equivalent training and experience is mandatory.

Interested parties should send a current résumé to: NASA Headquarters, attention: Sarah Keegan, Code EPM-3, Washington, D.C. 20546.

Selection for this position will be made from other-wise eligible candidates without discrimination for any nonmerit reason such as race, color, religion, sex, national origin, politics, marital status, phys-ical handicap, age, membership or nonmembership in an employee organization, or personal favoritism

## NATIONAL RESEARCH COUNCIL POSTDOCTORAL AWARDS CHEMICAL SYSTEMS LABORATORY

Basic and applied research opportunities exist in areas of: conformational analysis, sterochemistry, oxidation and hydrolysis mechanisms, reactions of radical ions, interfacial aspects of decontamination, radical ions, interfacial aspects of decontamination, penetration mechanisms through membranes, syn-thesis of reactive liquid crystals, spectroscopy of oriented molecules, chemical reactions on surfaces, ion-hydrate properties, characterization and optical properties of aerosols, dynamics of aerosol clouds, and aerosolization processes. Details on research programs may be obtained from: Dr. Edward J. Poziomek, telephone: 301-671-4144. Chemical Sys-tems Laboratory is located at Aberdeen Proving Ground, Maryland, at the head of the beautiful Chesapeake Bay within easy driving distance of Philadelphia, Baltimore, and Washington. Com-pleted applications must be postmarked not later than 15 January 1981. For application materials and a descriptive brochure write: a descriptive brochure write:

Associateship Office (JH 608-E7) National Research Council 2101 Constitution Avenue, NW Washington, D.C. 20418

POSTDOCTORAL RESEARCH ASSOCIATE-Position available immediately for an individual to work on immunology and ultrastructure of the hu-man malaria parasite *Plasmodium falciparum*. Canman malaria parasite *Plasmodium falciparum*. Can-didate must have experience in microbiology, cell bi-ology, or immunology. Salary from \$15,000 to \$17,000 per year, depending upon experience. Send curriculum vitae, reprints, and names of three refer-ences as soon as possible to: Dr. Susan G. Langreth, Department of Microbiology, c/o Personnel/Manpow-er Division, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Md. 20014. The Uniformed Services University is an Equal Opportunity/Affirmative Action Employer.

### RESEARCH POSITION AVAILABLE

University of California at Santa Barbara. Postdoctoral position to study resuspension and deposi-tion of cohesive sediments in lake and oceanic envi-ronments. Knowledge of fluid mechanics essential. Experience in measuring flow velocities, sediment concentrations, and sediment mineralogy is desir-able. Salary dependent upon experience. Candidates should send curriculum vitae, publications, and names of three references to: Wilbert Lick, Depart-ment of Mechanical and Environmental Engineering, University of California, Santa Barbara, Calif. 93106. Position open until filled. An Equal Opportunity/Affirmative Action Employer.

### POSITIONS OPEN

#### PLANT SYSTEMATICS

The Department of Biology, Virginia Polytechnic Institute and State University (VPI & SU), invites applications for a tenure-track position at the assist-ant professor level. Applicants should have the Ph.D. degree. The candidate will be expected to de-velop an upper level or graduate course in higher plant biosystematics, portionate in the bottom. plant biosystematics, participate in the bolany teaching program, and maintain an active research program with graduate students pursuing M.S. and Ph.D. degrees in botany. Salary is competitive and commensurate with experience and productivity. Letters of application, curriculum vitae, a list of three to five references, a brief description of career goals and proposed research, and selected pertinent reprints must be received by 15 December 1980. Adderss to: Dr. Bruce C. Parker, Chairman, Search Committee, Department of Biology, VPI & SU, Blacksburg, Va. 24061.

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### POSTDOCTORAL POSITIONS ENDOCRINE-REPRODUCTIVE BIOLOGY

The Endocrine-Reproductive Biology Group at The Endocrine-Reproductive Biology Group at the Worcester Foundation for Experimental Biology announces the availability of postdoctoral fellow-ships. These are for 1 year with possible renewal; the initial stipend is \$12,500. Applicants should sub-mit, in duplicate, their curriculum vitae, a brief sum-mary of research interests, a synopsis of the Ph.D. thesis research, and the names of three persons from whom references may be requested. Candidates should indicate the research areas in which they wish to work if a fellowship is awarded. Applications should be sent to: should be sent to:

Chairman, Search Committee ENDOCRINE-REPRODUCTIVE BIOLOGY FELLOWSHIP PROGRAM c/o Personnel Office Worcester Foundation for Experimental Biology 222 Maple Avenue Shrewsbury, Mass. 01545 n Fauel Opnetuniv/Affirmating Action Employ

An Equal Opportunity/Affirmative Action Employer

**POSTDOCTORAL POSITION** in U.S. Department of Agriculture (USDA) Laboratory is available now for research on the mechanisms of water transport in reverse osmosis (RO) membranes. Experience in the synthesis, treatment, and testing of RO membranes is required. The incumbent will work with two physis required. The incumpent will work with two phys-ical chemists who are investigating the molecular properties of RO membranes. Salary: \$22,486. Send résumé or U.S. Office of Personnel Management forms to: Dr. J. R. Scherer, Western Regional Re-search Center, USDA, Berkeley, Calif. 94710. Tele-phone: 415-486-3407, for details. An Equal Opportu-nity Employer nitv Emplover.

### POSTDOCTORAL POSITION

There is an opening for a postdoctoral fellow to There is an opening for a postdoctoral fellow to join an ongoing research program in biochemical en-docrinology of gonadotropins or opioid peptides. The project could involve mechanistic or phys-icochemical approaches, or both. Candidates with substantial postdoctoral experience may be consid-ered for a nontenure-track faculty appointment at the level of research instructor. Please submit cur-riculum vitae and three letters of recommendation to: Dr. J. David Puett, Department of Biochemistry, Vanderbilt University, Nashville, Tenn. 37232. An Equal Opportunity/Affirmative Action Employer.

## UNIVERSITY OF ARIZONA PROFESSOR AND CHAIRMAN OF COMMITTEE ON APPLIED MATHEMATICS

This program is that of director of an established interdisciplinary graduate program in applied mathematics, who also serves to encourage and oversee interdisciplinary mathematical scholarship at the university. The program presently has 26 superior graduate students. Many are engaged in research projects under the guidance of professors in depart-ments including Aerospace and Mechanical Engineering, Astronomy, Atmospheric Sciences, Electri-cal Engineering, Hydrology, Management Informa-tion Systems, Mathematics, and Optical Sciences.

Applications for the position are solicited. Ex-cellent research credentials are required. Prior administrative experience is desirable but not essen-tial. The salary is negotiable. Send curriculum vitae and, the salary is negotiable. Send curriculum vitae and copies of a few important publications by 10 Jan-uary 1981 to: Paul C. Fife, Chairman of Search Com-mittee, Building 89, University of Arizona, Tucson, Arizona 85721. For further information, telephone: 602-626-4664.

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# Ph.D Biochemist

New England Nuclear is a world leader in the manufacture of radioactive chemical for medical research and diagnosis

Working in our Biochemistry lab, you will conduct research and development in designing novel approaches for pro-duction and analysis of labeled nucleotides. Duties include synthesizing and characterizing labeled nucleotide photoaffinity probes, investigation of tech-niques to enhance stability and asniques to enhance stability and as-sessment of research pertaining to new product development. Qualified appli-cants will have a Ph.D in Biochemistry/ Molecular Biology and 0-4 years post-doctoral experience with technical ex-pertise in synthesis and purification of nucleotides and nucleotide analogues.

We offer competitive salaries as well as a comprehensive benefits package, including profit sharing and relocation expenses

Interested applicants should submit a resume to Ann Magno, New Eng-land Nuclear, 549 Albany Street, Boston, MA 02118.

NEN New England Nuclear A BETTER WORLD

# Neurobiologist

Bell Laboratories is currently seeking a professional with advanced degrees in Neurobiology or closely related disciplines. A PhD degree plus a minimum of 2 years of independent research experience or postdoctoral experience is required.

Candidates should have an orientation toward molecular mechanisms and strong research interest in such areas as neuroanatomy, signalling in small systems of neurons and CNS mapping. The position provides opportunity for interaction with other scientists engaged in research spanning diverse areas from CNS modelling and psychophysics to the physiology of hearing.

Please send resume and list of publications to: W. A. Blinn, Director, Technical Employment, Bell Laboratories, Center 831-174, 600 Mountain Ave., Murray Hill, N.J. 07974.



### An Equal Opportunity Employer

onference on the ENVIRONMENTAL PROTECTION AGENCY's (EPA) GENE-TOX PROGRAM: Review and Evaluation of Selected in vitro and in vivo methods for the Detection of Chemical Mutagens and Genotoxic Agents

3 to 5 December 1980 Sponsored by: Office of Pesticides and Toxic Substances Place: National Academy of Sciences Auditorium 2101 Constitution Avenue, NW, Washington, D.C.

The purpose of this conference is to present the results of Phase I of the EPA's Gene-Tox Program. Phase I is a review and evaluation of 23 in vitro and in vivo assays for gene mutation, chromosomal aberrations, DNA damage and repair, and oncogenic transformation. Each assay will be discussed in regard to its ability to discriminate between mutagens and nonmutagens and/or carcinogens and noncarcinogens: its utility in a mutagenicity screening program; and its likely role in hazard identification and/or risk estimation.

### Assays To Be Discussed:

- Gene Mutation
  - Bacteria Yeast
  - Fungi
  - Plants
  - Mammalian Cells in Culture
  - Drosophila Sex-Linked Recessive Lethal Test
     Mouse Spot Test
- Mouse Specific Locus Test
- Induse Specific Locus Test
  Chromosomal Aberrations
  In Vitro and In Vivo Cytogenetics
  Plant Cytogenetics
  Sister Chromatid Exchange
  Yeast

  - Yeast

  - Drosophila
    Dominant Lethal Assay

  - Micronucleus Test
    Heritable Translocation Test in Mice
- **DNA Damage and Repair** Bacteria
- Human and Rodent Cells in Culture
  In Vivo
- **Oncogenic Transformation of Cells in Culture**
- Sperm Morphology Host Mediated Assay and Body Fluid Analysis

### Registration

There will be no registration fee. Preregistration is required, however, and is limited to the first 450 applicants. Please telephone: Karen Whitby-Logan, 202-755-4863 Angela Auletta, 202-472-3095

Reviews and Recommendations Madelyn A. McRae This indispensible reference reviews nearly 1,000 films from all areas of science. It provides detailed summaries, evaluations and complete ordering information for films appropriate to students, teachers, professionals and general audiences. The reviews are grouped by Dewey deci-

mal category and subject/title and film distributor indexes make it easy to use. A must for the librarian, the science teacher, or the curious browser.

1980 182 pages Cloth: ISBN 87168-304-7 \$14.00

American Association for the Advancement of Science, Box FL4, 1515 Massachusetts Avenue, N.W., Washington, D.C. 20005

The Medical College of Georgia is seeking PHYSI-CIANS interested in academic careers in clinical nutrition. Postgraduate training may be in internal medicine, pediatrics, family practice, or surgery. Subspecialty training in gastroenterology or metabo-lism is helpful. Clinical investigation will accompany Istm is neiptil. Clinical investigation will accompany nutrition care of patients. Clinical Nutrition Re-search Unit Core laboratories are well staffed. Send résumé and references to: Elaine B. Feldman, M.D., Chief, Section of Nutrition, Medical College of Geor-gia, Augusta, Georgia 30912. The Medical College of Georgia is an Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediate-POSTDOCTORAL POSTITION available immediate-ly for studies of the mechanism of androgen action. Emphasis on regulatory factors, hormone-hormone interactions, and genetics using in vivo and in vitro studies. Ph.D. in biochemistry preferred but not nec-essary. Send curriculum vitae and names of three references to: Dr. Leslie P. Bullock, Division of Endo-crinology, Milton S. Hershey Medical Center, The Pennsylvania State University, Hershey, Pa. 17033. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL/RESEARCH ASSOCIATE POSI-POSTDOCTORAL/RESEARCH ASSOCIATE POSI-TION available immediately for studies on the mo-lecular biology of the regulation of membrane pro-teins in transformed animal cells. Experience or training in protein chemistry, membrane biochemis-try, and/or molecular biology is desirable. Salary is NIH scale, depending on experience and qualifica-tions. Send inquiries and curriculum vitae to: Dr. Michael J. Weber, Department of Microbiology, Uni-versity of Illinois, Urbana, Illinois 61801. The Univer-sity of Illinois is an Affirmative Action/Equal Oppor-tunity Employer. tunity Employer.

**POSTGRADUATE RESEARCH POSITION** is available for a pharmacologist or biochemist interested in investigating the interaction between drugs and alcoinvestigating the interaction between drugs and alco-hol. A doctorate in pharmacology or biochemistry is required, with preference given to applicants having experience in intermediate metabolism. Available immediately for a period of 2 years. Salary commen-surate with experience. Send résumé and three let-ters of reference to: Dr. Charles Lieber, Alcohol Re-search and Treatment Center, Veterans Administra-tion Hospital, 130 West Kingsbridge Road, Bronx, N.Y. 10468.

# POSTDOCTORAL RESEARCH POSITION IN THE BIOCHEMISTRY OF MAMMALIAN FERTILIZATION

OF MAMMALIAN FERTILIZATION NIH grant-funded position is available for a 2-year term (with the possibility of a third year) beginning anytime between 1 January 1981 and 1 July 1981. Salary is approximately \$15,000 for the first year. Research will be concerned with the molecular mechanisms involved in the stimulation by cate-cholamines of sperm membrane fusion events (the acrosome reaction) essential for fertilization. Applicants must possess (by 1 July 1981) a Ph.D. degree in biochemistry, or related field (for example, cell biology, molecular endocrinology, and so forth) and preferably should not have more than 1 year of postdoctoral training. Send curriculum vitae and the names of three references to: Dr. Stanley Meizel, Denames of three references to: Dr. Stanley Meizel, De-partment of Human Anatomy, School of Medicine, University of California, Davis, California 95616. The University of California is an Equal Opportunity/Affirmative Action Employer.

Position available for **PROFESSOR OF RADIOLO-GY** (radiation oncology); **DIRECTOR**, Division of Radiation Oncology. Should be eligible for tenure appointment at professional rank within Department of Radiology; should have proven ability in research and have national and international reputation which will support an appointment as principal investigator on basic or clinical cancer research projects. Send applications to: Robert Moseley, Jr., M.D., Radiolo-gy Department, School of Medicine, University of New Mexico, Albuquerque, N.M. 87131. Affirmative Action/Equal Opportunity Employer.

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Bioassay Systems Corporation, a 40-member testing laboratory near Boston, is seeking a toxicologist to supervise subchronic and chronic animal studies. Ph.D. with at least 2 years of experience required. Send résumé and list of references to:

F. Howard Schneider President Bioassay Systems Corporation 225 Wildwood Avenue Woburn, Mass. 01801 Equal Opportunity Employer

### **POSITIONS OPEN**

Research Associate, Ph.D. in physiology or biophysics with experience in cardiac electrophysiology. Must also have demonstrated skills in the construction and use of Na and Ca selective microelectrodes for intracellular recording. Salary and rank related to experience and productivity. Send curriculum vitae, two references, and supporting material to: Dr. H. A. Fozzard, Hospital Box 423, The University of Chi-cago, 950 East 59 Street, Chicago, III. 60637. Affirma-tive Action/Equal Opportunity Employer.

**RESEARCH ASSOCIATE—AGRONOMY.** Irrigated Agriculture Research and Extension Center seeks a Ph.D. in agronomy or closely related area to conduct research in plant breeding and culture of improved hop selections. Funding from grant sources for 1 year, renewable for 2 years with potential for per-manent funding. Salary: \$18,000 per year minimum. manent tunding. Salary: \$18,000 per year minimum. Send résumé, transcripts, and names and addresses of three persons who have been asked to submit let-ters of reference by 15 December 1980 to: Dr. L. R. Faulkner, Superintendent, Irrigated Agriculture Re-search and Extension Center, Prosser, Wash. 99350. An Equal Opportunity/Affirmative Action Employer. Women, minorities, and handicapped persons are encouraged to apply and identify themselves as such in their applications. in their applications.

RESEARCH ASSOCIATE/POSTDOCTORAL FEL-LOWSHIP available January 1981 for individual 3 to 5 years beyond doctorate to study metabolism of motor neurons. Background in biochemistry (protein purification, carbohydrate metabolism, cyclic nucleotides, and cell culture) highly desirable. Orientation is toward molecular approaches to the hu-man disease amyotrophic lateral sclerosis (ALS; man disease amyotrophic lateral sclerosis (ALS; Lou Gehrig's disease) as well as to CNS regenera-tion. Appointment as research assistant professor possible. Stipend: \$18,000 to \$22,000 for 2 years, de-pending on qualifications. Submit curriculum vitae and request three letters of reference be sent to: Dr. Barry W. Festoff, Neurobiology Laboratory, Room 101B, University of Kansas Medical Center, 39th and Rainbow Boulevard, Kansas City, Kans. 66103. An Equal Opportunity/Affirmative Action Employer.

### SCIENCE RESEARCH ASSOCIATE

membrane-enzyme biochemistry Ph.D. sought to pursue collaborative research in our Laboratory of Molecular Neurobiology. We are pursuing enzymes causing identified alterations in plasma membrane-associated protein kinases. ATPases, gly-ferentiating neuroblastoma transport mutants grown in cell culture. We will emphasize the fractionation and quantitation of lysosomal, Golgi, and plasma and quantitation of lysosomal, Golgi, and plasma membrane associated protein kinases, ATPases, gly-cosidases, and glycosyltransferases. An outstanding person would be offered a long-term position leading potentially to a faculty appointment. We have an out-standing group of scientists in our laboratory and of-fer an immediate opportunity for career develop-ment in molecular neurobiology. Telephone: (collect) 214-688-3356, or send curricu-um vites to: Erzed Backin, Ph. D. Department of Neu-

Inephone: (Collect) 214-080-3556, of send curricu-lum vitae to: Fred Baskin, Ph. D., Department of Neu-rology, University of Texas Health Science Center, 5323 Harry Hines Boulevard, Dallas, Texas 75235. The University of Texas is an Equal Opportunity/ Affirmative Action Employer and invites appli-cations from all qualified individuals.

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The University of Nebraska Medical Center, De-partment of Radiology, is seeking a **RADIATION PHYSICIST**, preferably with a Ph.D. and certifica-tion by the American Board of Radiology. The clos-ing date for applications would be 31 January 1981. Rank and salary commensurate with education and experience. Candidates chould be gualified in there. Rank and salary commensurate with education and experience. Candidates should be qualified in thera-py and diagnostic radiology and have research inter-est. The University of Nebraska Equal Employment Opportunity and Affirmative Action Guidelines place responsibility for evaluating the appropriate-ness of qualifications on administrative officers; deans, directors, department chairs, and so forth, shall determine whether such standards and criteria are relayent to the duties of the pretioular position in are relevant to the duties of the particular position in question. Send curriculum vitae to: Harold A. Bal-taxe, M.D., Chairman, Department of Radiology, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, Nebraska 68105.

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Position available for Ph.D. with interest in **REPRO-DUCTIVE ENDOCRINOLOGY** to direct Fetal Med-

icine Clinical and Research Laboratory. Administra-tive and funding experience desirable. Send curricu-lum vitae, salary history, and references to: Personnel Department St. Francis Hospital and Medical Center 114 Woodland Street Hartford, Com. 06105 Hartford, Conn. 06105

### SCIENTIFIC DIRECTOR FOR CANCER RESEARCH

AMC Cancer Research Center and Hospital seeks a AMC Cancer Research Center and Hospital seeks a director to administer and lead its clinical and basic science research programs. Responsibilities will in-clude preparation and administration of budget, and personnel and facility planning. The successful can-didate, who may be either an M.D. or Ph.D., should have recent or current experience in his/her own ac-tive research program and should have experience in managing such projects. Experience in federal grantsmanship is highly desirable. The successful candidate will have discretion for the development of new projects and termination of current ones of new projects and termination of current ones

Interested candidates will provide curriculum vitae and three confidential references and will document and under control of the second stand with document based, clinically relevant research. The candidate must provide clear evidence of leadership capability and must meet the qualifications for a senior faculty ppointment at the University of Colorado Health Sciences Center.

AMC offers a salary competitive to a medical school senior faculty member, housing assistance, com-petitive perquisites (insurance, pension, vacation, sabbatical leave, moving expense, a negotiable ini-tial contract, and an annual salary review keyed to performance). Initial support for the research of the candidate is negotiable.

The position will be open 1 July 1981 and appli-cations will be reviewed 15 January 1981. Please submit requisite information to: President, AMC Cancer Research Center and Hospital, 6401 West Colfax Avenue, Lakewood, Colorado 80214. An Equal Opportunity Employer.

#### SEDIMENTARY GEOCHEMIST

Princeton University seeks applicants for an as-sistant professorship within the general fields of the chemistry of sedimentary systems or the genesis/ diagenesis of sedimentary rocks. Further informaion may be obtained from: Professor David Crerar, telephone: 609-452-4123.

Submit applications, including curriculum vitae, statement of research and teaching interests, and names of three references to

### Professor Sheldon Judson, Chairman Department of Geological and Geophysical Sciences Princeton University Princeton, N.J. 08544

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VISITOR APPOINTMENTS are available for new and established Ph.D's for up to 1-year periods to carry out research in solar physics, solar-terrestrial physics, and related subjects. Applicants should provide curriculum vitae, including education, work experience, publications, the names of three scien-ter for the subjects. experience, publications, the names of three scien-tists familiar with their work, and a statement of their research plans. Applications must be received by 15 January 1981 and they should be sent to: Vis-itor Committee, High Altitude Observatory, National Center for Atmospheric Research (NCAR), P.O. Box 3000, Boulder, Colorado 80307. NCAR is an Equal Opportunity/Affirmative Action Employer.



**RESEARCH SPECIALIST:** Massachusetts Institute of Technology (MIT), Energy Laboratory, is seeking a research specialist who, as a member of the Intera research specialist who, as a member of the Inter-national Energy Studies group, will do economic modeling and perform political analyses on inter-national energy trade. Requires master's degree in political science or economics, with experience in the other area. Must have research experience with both international oil markets and uranium trade and be able to perform both economic modeling and political analyses. Ability to work in group projects with faculty and staff and to allocate effort between several projects essential. To apply, nlease submit several projects essential. To apply, please submit résumé (referring to Job Number R80-308) to: MIT Personnel Office, E19-239, 77 Massachusetts Avenue, Cambridge, Mass. 02139. *MIT is an Equal Opportu*nity/Affirmative Action Employer.

STAFF TOXICOLOGIST. Position available in California Department of Food and Agriculture's Pesti-cide Program. Additional openings possibly later in other departments of state government. Require-ments: a doctoral degree in toxicology, biochemis-try, pharmacology, or closely related specialty and 3 years of postdoctoral experience in development of toxicological difference in the standard of the state of the 5 years of postdoctoral experience in development of toxicological findings relative to hazards to ani-mals and/or man. Salary: \$2848 to \$3443 per month. Contact: Dr. Keith Maddy, CDFA, 1220 N Street, Sacramento, Calif. 95814 (telephone: 445-8400), by 15 January 1981. The state of California is an Equal Opportunity/Affirmative Action Employer.

### UNIVERSITY OF FLORIDA

UNIVERSITY OF FLORIDA The Department of Geology invites applications from STRUCTURAL GEOLOGISTS for a tenure-track position beginning in fall 1981. Applicants must have a Ph.D. degree in structural geology or a closely related field, for example, tectonophysics, and be able to show major accomplishments in re-search and teaching, both graduate and under-graduate, or potential for such achievement. The successful candidate's qualifications will determine the rank and salary of the position. The university's proximity to the Caribbean re-gion and the presence of a fully operational paleo-magnetics laboratory offers an especially wide varie-ty of opportunities for teaching and research. The University of Florida has embarked upon a broad ef-fort to improve both the scope and quality of its pro-

Oniversity of Florida has embarked upon a oload ef-fort to improve both the scope and quality of its pro-gram in geology, at both the graduate and under-graduate levels. A new chairman has been appointed and will take office in September 1981; additional ap-pointments will follow. The University of Florida is an Equal Opportunity/ A formative Action Employee, and ambiguations are

Affirmative Action Employer, and applications are encouraged from all qualified persons. An applicant should submit current curriculum vitae with her or his letter of application and should arrange for the prompt submission of three letters of reference, be-fore 15 December 1980, to:

Professor John D. Ridge, Acting Chairman Department of Geology 1112 GPA University of Florida Gainesville, Fla. 32611

SURFACE/GROUNDWATER CHEMICAL ANA-LYST. B.S.-Ph.D. Atomic absorption, spectro-photometrist-M.S.-Ph.D. Familiarity with Varian

pnotometrist—M.S.-Ph.D. Familiarity with Varian equipment desired. LIMNOLOGIST—M.S. level. Send copies of transcripts, curriculum vitae, and three references to: Applied Environmental Services, Charles M. Courtney, Director, 990 North Barfield Drive, Marco Island, Florida 33937. Telephone: 813-394-2795.

#### TOXICOLOGY

University of Guelph, Veterinary Toxicologist/Phar-University of Gueiph, Veterinary Toxicologist/Phar-macologist. A tenure-track position is available Jan-uary 1981, at the rank of assistant or associate pro-fessor, depending on qualifications and experience, with commensurate salary. Applicants should have a Ph.D. in pharmacology and/or toxicology with teaching and research experience. Preference may be given to candidates with a degree in veterinary medicine.

medicine. Responsibilities will include teaching pharmacology and toxicology in undergraduate D.V.M. and B.Sc. programs and also in various graduate courses. The incumbent is expected to develop a strong animal health-oriented research program which is currently funded in part by the Ontario Ministry of Agriculture and Food. (Position subject to final budgetary ap-provat.) Enquiries and application should be made to: Dr. P. Eyre, Chairman, Department of Biomedical Sciences, University of Guelph, Guelph, Ontario, Canada N1G 2W1.

### WORKSHOP

International Workshop on Herpesviruses 27 to 31 July 1981—Bologna, Italy This workshop will cover topics related to herpesvirus genome structure, function and replication, cell transformation, latency, immunology, and che-motherapy. Individuals interested in participating in the workshop should write to: Dr. Fred Rapp, De-partment of Microbiology, The Pennsylvania State University, Hershey, Pa. 17033. Telephone: 717-534-8253.

### **FELLOWSHIPS**

POSTDOCTORAL FELLOWSHIP position in clinical pharmacology at Southwestern Medical School. Adrenergic receptors, prostaglandins, hypertension, and renal and cardiovascular pharmacology. Send résumé to: Dr. William Pettinger, 5323 Harry Hines Boulevard, Dallas, Texas 75235.

Fill a staff position on Capitol Hill. Two American Chemical Society CONGRES-SIONAL FELLOWSHIPS to begin fall 1981. For further information, write: Amanda B. Huston, American Chemical Society, 1155 16th Street, NW, Washington, D.C. 20036. Telephone: 202-872-4384.

POSTDOCTORAL RESEARCH FELLOWSHIPS available in respiratory physiology beginning July 1981. Send résumé plus the names of two references to:

Dr. S. M. Tenney Department of Physiology Dartmouth Medical School Hanover, N.H. 03755 Dartmouth Medical School is an Affirmative Action/

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Isolation, characterization, mode of action, molecu-lar genetics of hormonal effectors regulating dif-ferentiation in streptomycetes and embryos. NIH stipend levels. Send curriculum vitae and references to

Dr. Burton M. Pogell Department of Medicinal Chemistry/Pharmacognosy University of Maryland 636 West Lombard Stree **Baltimore**, Maryland 21201

The Program in Developmental Psychology at the University of Illinois at Urbana-Champaign has three NICHD POSTDOCTORAL FELLOWSHIPS for a 1- or 2-year period. Appointments could begin any time between January and June 1981. Salary is \$13,380 at beginning level, with adjustments for years since Ph.D. to \$17,040. To ensure equal consideration, please mail application and three letters of recommendation by 15 January 1981 to:

### Professor Ross D. Parke Department of Psychology University of Illinois Champaign, Illinois 61820

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POSTDOCTORAL FELLOWSHIPS, NCI-SPON-SORED. Applicants with backgrounds and/or inter-est in membrane biochemistry, DNA damage and repair, cytogenetics, and immunology are sought for research training in the following areas: (i) soluble factors and immune cell regulation (Dr. K. A. Smith); (ii) tumor biology of small cell carcinoma of Similar, (ii) fullior biology of small cell calculated to the lung (Dr. G. D. Sorenson); and (iii) chemical car-cinogenesis in liver and pancreas (Dr. J. D. Yager and Dr. D. S. Longnecker). For information, write: D. S. Longnecker, M.D., Norris Cotton Cancer Cen-ter, Dartmouth Medical School, Hanover, N.H.

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#### POSTDOCTORAL FELLOWSHIP REQUEST

Positions are available for recently graduated Ph.D.'s for research in the following areas: (i) biol-ogy and therapy of multiple myeloma, (ii) cellular and biochemical actions of anticancer agents both alone and in combination, (iii) cellular radiation biology, and (iv) the biology and treatment of hormone-responsive tumors. Please send curriculum vitae to: Dr. Frederick A. Valeriote, 4511 Forest Park Boule-vard, Suite 405, St. Louis, Missouri 63108. Equal Op-portunity/Affirmative Action Employer, M/F/H.

### **GRADUATE STUDY**

PHYSIOLOGY DOCTORAL PROGRAM. The Department of Physiology, Medical University of South Carolina, seeks qualified applicants for a Ph.D. program. The department is committed to graduate education and provides research training in graduate education and provides research training in the areas of membrane physiology; pathophysi-ology of endotoxic shock; CNS neurophysiology; neuroendocrinology; reproductive physiology; res-piratory physiology; temperature regulation; and cardiovascular physiology. Stipends available. Con-tact: Dr. J. S. Graves, Department of Physiology, Medical University of South Carolina, Charleston, S C 20403. S.C. 29403.

### BIOPHYSICS AT THE MEDICAL COLLEGE OF WISCONSIN

An Interdisciplinary Biophysics Program is offered at the Medical College of Wisconsin for students inter-ested in advanced study leading to the M.S. or Ph.D. in biophysics. The faculty in the program are derived from both the clinical and basic science departments, and share a common interest in the biophysiments, and share a common interest in the biophysi-cal investigation of biological and medical phenome-na. The major goals of the program are to promote collaborative research and to maximize the inter-disciplinary nature of the student's education. Infor-mation on application procedures, research opportu-nities, and program curriculum may be obtained from: from:

> Neil S. Mandel, Ph.D. Biophysics Graduate Program The Medical College of Wisconsin 8701 Watertown Plank Road Milwaukee, Wisconsin 53226

#### GRADUATE STUDIES IN GENETICS

Research and teaching assistantships are available in the Biology Department of Wesleyan University for the Biology Department of Wesleyan University for qualified applicants with interests in prokaryotic or eukaryotic molecular genetics and in cellular, devel-opmental, or quantitative genetics. Research inter-ests include genome organization (transposable ele-ments, Y-chromosome organization), regulation of gene expression (myogenesis, collagen synthesis, spermatogenesis, inductive cellular interactions), and the genetic basis of behavior (thermoregulation, ma-ternel behavior). The operitor their other of for 1001 ternal behavior). The assistantship stipend for 1981– 1982 is expected to be approximately \$5500 in addi-tion to full tuition remission and dependency allow-ance (if applicable). For further information, write: Director of Graduate Admissions, Biology Depart-ment, Wesleyan University, Middletown, Conn. ment, 06457.

### TRAINEESHIPS

PREDOCTORAL TRAINEESHIPS IN ENVIRON-MENTAL PATHOBIOLOGY—NIH-sponsored program for training in research concerning adverse effects of environmental substances on eukaryotic cells and mammalian tissues. Active research programs include chemical carcinogenesis, mutagen-esis, DNA repair, xenobiotic metabolism, heavy metal toxicity, atherosclerosis, and neurotoxicity. Predoctoral traineeships are available to support training leading to the Ph.D. degree in experimental

raming reaung to the Ph.D. degree in experimental pathology. Appointments are open to qualified can-didates with an appropriate baccalaureate degree or with a previous doctoral degree (M.D., D.V.M., Ph.D.).

Send curriculum vitae and names of three referees to: Dr. J. W. Grisham, Department of Pathology, University of North Carolina School of Medicine, Chapel Hill, N.C. 27514. The University of North olina is an Equal Opportunity/Affirmative Action Employer.

### MARKETPLACE

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Dr. D. R. Sanadi Cell Physiology Department BOSTON BIOMEDICAL RESEARCH INSTITUTE 20 Staniford Street Boston, Mass. 02114

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National Cancer Institute National Institutes of Health Public Health Service Department of Health and Human Services Opening Date: November 17, 1980 Closing Date: December 17, 1980 All applications must be received by closing date.

# **DEPUTY DIRECTOR National Cancer Institute**

The National Cancer Institute (NCI) develops the overall national strategy against cancer, coordinates all Federal Government and non-Federal Government cancer programs, and supports international programs of cancer research. The Institute's efforts cover the entire spectrum of basic, applied, and developmental research. It encompasses the research thrusts of cause and prevention of cancer, detection and diagnosis, treatment and rehabilitation, and cancer biology. It also encompasses control interventions in prevention; detection, diagnosis, and pretreatment evaluation; and treatment, rehabilitation, and continuing care.

As Deputy Director, NCI, the incumbent will serve as a full Deputy to the Director in the coordination and direction of all programs and activities for the Institute. The Office of the Director, NCI, serves as the focal point for the National Cancer Program; develops and provides policy guidance and staff direction to the Institute's programs in areas of program coordination, program planning, clinical care and administrative management. The Deputy Director will assist in the management of an annual budget of approximately \$1.0 billion, and will provide leadership to a workforce of approximately 2300 employees.

This is a Civil Service position in the Senior Executive Service (SES), with a salary range from \$47,889 to \$50,112.50 per annum depending on qualifications. Candidates may be eligible for Physicians Comparability Pay up to \$10,000 per year. Alternately, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service. The SES individual selected, if not presently in the SES, must serve a oneyear probationary period.

The mandatory professional/technical qualifications for the position require that candidates: a) meet the minimum educational requirements for Medical Officer, or Health Scientist (or equivalent combination of experience and training, as defined by the U.S. Office of Personnel Management Handbook X-118, Qualification Standards for Positions under the General Schedule; and b) have experience in research and/or experience and knowledge of extramural research programs in one or more areas related to cancer biology, causation, prevention, detection, diagnosis, treatment or rehabilitation. The managerial/ executive qualifications are: experience in the leadership/management of a research program, demonstrating competence to assume leadership responsibilities in: assuring that national and agency goals and priorities are considered in carrying out the functions and responsibilities of the organization; establishing and maintaining relationships with key individuals and groups outside the organization; directing and guiding programs and projects, including long-term and short-term planning, and establishing objectives and priorities; establishing procedures for the development and defense of the organization's budget, and allocating fiscal and personnel resources to support program implementation; developing processes and overseeing activities to assure the fair and equitable employment of qualified persons, and implementing EEO objectives; and developing and implementing procedures for monitoring program performance including periodic analysis and evaluation.

Candidates who meet the mandatory requirements will be further evaluated by the Search Committee on the following factors: Communication skills (oral and written), peer recognition (honors, awards, membership in societies, advisory or consultant appointments, etc.). Additional information may be obtained from Mr. Sherman Hatchett, Personnel Management Specialist, NCI, (301) 496-6864.

Applications (Personal Qualifications Statement, SF-171) are to be sent to the above individual at this address: National Cancer Institute, Building 31, Room 3A27, 9000 Rockville Pike, Bethesda, Maryland 20205. A current curriculum vitae, bibliography and references and/or appraisals of performance must accompany all applications. Applications of women and/or minority group members are especially solicited.

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