

the one that has usually been employed for studying drunken driving) he assesses its product in a reasoned but critical way. Where possible he integrates other sources of information, carefully pieces together strands of evidence, and weighs alternative interpretations to reach an altogether sensible conclusion.

The general reader will learn a lot from this book about drinking and driving and the laws of various countries to control it, as well as some appreciation of the basic deterrence problem. The social scientist will be exposed to a thorough assessment of evidence concerning the deterrent effect of law and its implication in this one area. And those actually working on the deterrence problem will find a useful synthesis of research and documentation that otherwise would not be accessible. This book is a fine addition to the literature of deterrence, public policy, and criminology.

CHARLES R. TITTLE

Department of Sociology and Social Psychology, Florida Atlantic University, Boca Raton 33431

Books Received

The Advanced Theory of Statistics. Vol. 3, Design and Analysis, and Time-Series. Maurice Kendall, Alan Stuart, and J. Keith Ord. Macmillan, New York, ed. 4, 1983. x, 782 pp., \$65.

Advances in Electronics and Electron Physics. Vol. 59. Peter W. Hawkes, Ed. Academic Press, New York, 1982. xii, 306 pp., illus. \$47.50.

Advances in Energy Productivity. Papers from a congress, Sept. 1982. Fairmont, Atlanta, 1982. x, 508 pp., illus. \$45.

Advances in Geophysics. Vol. 24. Barry Saltzman, Ed. Academic Press, New York, 1982. viii, 328 pp., illus. \$46.

Advances in Hydrosience. Vol. 13. Ven Te Chow, Ed. Academic Press, New York, 1982. xii, 394 pp., illus. \$69.

Advances in Nutritional Research. Vol. 5. Harold H. Draper, Ed. Plenum, New York, 1983. xiv, 258 pp., \$39.50.

Alaska's Oil/Gas and Minerals Industry. Alaska Northwest Publishing Company, Edmonds, Wash., 1982. 216 pp., illus. Paper, \$12.95. *Alaska Geographic*, vol. 9, No. 4.

Alkaloids. Chemical and Biological Perspectives. Vol. 1. S. William Pelletier, Ed. Wiley-Interscience, New York, 1983. xiv, 398 pp., illus. \$60.

Almost Periodic Functions and Differential Equations. B. M. Levitan and V. V. Zhikov. Translated from the Russian edition (Moscow, 1978) by L. W. Longdon. Cambridge University Press, New York, 1983. xii, 212 pp. \$34.50.

Analysis of Unbalanced Data. A Pre-program Introduction. Ching Chun Li. Cambridge University Press, New York, 1983. x, 146 pp. \$19.95.

The Applied Dynamics of Ocean Surface Waves. Chiang C. Mei. Wiley-Interscience, New York, 1982. xx, 740 pp., illus. \$75.

Bibliography of Nebraska Geology, 1843-1976. John H. Sandy and Jay Fussell. University of Nebraska Conservation and Survey Division, Lincoln, 1983. xiv, 198 pp. Cloth, \$10; paper, \$5.

Bioactive Carbohydrates. In Chemistry, Biochemistry and Biology. John F. Kennedy and Charles A. White. Horwood, Chichester, England, and Halsted (Wiley), New York, 1983. 332 pp., illus. \$79.95.

Biochemical and Clinical Aspects of Pteridines. Vol. 1, Cancer, Immunology, Metabolic Diseases. Proceedings of a workshop, St. Christoph, Arlberg, Austria, Mar. 1982. H. Wachter, H. Ch. Curtius, and W. Pfeleiderer, Eds. Walter de Gruyter, New York, 1982. xvi, 374 pp., illus. \$68.20.

Biology. Knut Norstog and Andrew J. Meyer-

riecks. Merrill (Bell and Howell), Columbus, Ohio, 1983. xvi, 672 pp., illus. \$26.95.

Biology Reviews. Vol. 3. V. P. Skulachev, Ed. Translated from the Russian. Soviet Scientific Reviews (Harwood), New York, 1982. x, 442 pp., illus. \$89.50. Soviet Scientific Reviews, Section D.

Cancer. The Biology of Malignant Disease. Graham Currie and Angela Currie. Edward Arnold, Baltimore, 1982. viii, 136 pp., illus. Paper, \$16.50.

Cancer Chemotherapy 1. F. M. Muggia, Ed. Nijhoff, The Hague, 1983 (U.S. distributor, Kluwer Boston, Hingham, Mass.). xiv, 346 pp., illus. \$69.50. Cancer Treatment and Research, vol. 7.

Les Cédrières du Québec. Bertrand Blanchet. Laboratoire d'Ecologie Forestière, Université Laval, Québec, 1982. xiv, 166 pp., illus. Paper, \$10; to institutions, \$20. *Etudes Ecologiques*, 6.

The Cell Nucleus. Harris Busch and Lawrence Rothblum, Eds. Academic Press, New York, 1982. Vol. 10, rDNA, Part A. xxvi, 426 pp., illus. \$57. Vol. 11, rDNA, Part B. xxiv, 298 pp., illus. \$45.

Chain Structure and Conformation of Macromolecules. Frank A. Bovey with a chapter by Lynn W. Jelinski. Academic Press, New York, 1982. x, 260 pp., illus. \$19.50.

Chemical Hydrogeology. William Back and R. Allan Freeze, Eds. Hutchinson Ross, Stroudsburg, Pa., 1983 (distributor, Van Nostrand Reinhold, New York). xvi, 416 pp., illus. \$49. Benchmark Papers in Geology, vol. 73.

Chemistry for Health-Related Sciences. Concepts and Correlations. Curtis T. Sears and Conrad L. Stanitski. Prentice-Hall, Englewood Cliffs, N.J., ed. 2, 1983. xx, 540 pp., illus. \$26.95.

Chemistry of Natural Products. Papers from a symposium, Shanghai, China, Oct. 1980. Wang Yu, Ed. Science Press, Beijing, and Gordon and Breach, New York, 1982. xiv, 322 pp., illus. \$77.

Energy from Alcohol. The Brazilian Experience. Harry Rothman, Rod Greenshields, and Francisco Rosillo Callé. University Press of Kentucky, Lexington, 1983. x, 188 pp., illus. \$20.

Engineering Professionalism and Ethics. James H. Schaub and Karl Pavlovic, Eds. Wiley-Interscience, New York, 1983. xvi, 560 pp. Paper, \$32.95.

Environmental Science. Managing the Environment. P. Walton Purdom and Stanley H. Anderson. Merrill, Columbus, Ohio, ed. 2, 1983. xiv, 582 pp., illus. \$24.95.

Environmental Stress. Gary W. Evans, Ed. Cambridge University Press, New York, 1983. xiv, 386 pp. \$34.50.

Epilepsy. Arthur A. Ward, Jr., J. Kiffin Penry, and Dominick P. Purpura, Eds. Raven, New York, 1983. xii, 404 pp., illus. \$49.50. Research Publications: Association for Research in Nervous and Mental Disease, vol. 61.

Epilepsy and Motor System. Proceedings of a symposium, Münster, Germany, Dec. 1981. E.-J. Speckmann and C. E. Elger, Eds. Urban & Schwarzenberg, Baltimore, 1983. xii, 348 pp., illus. Paper, \$27.50.

Estuarine Comparisons. Proceedings of a conference, Gleneden Beach, Ore., Nov. 1981. Victor S. Kennedy, Ed. Academic Press, New York, 1982. xviii, 710 pp., illus. \$37.

Forest Fire Prevention and Control. Proceedings of a seminar, Warsaw, May 1981. T. van Nao, Ed. Published for the United Nations by Nijhoff/Junk, The Hague, 1982 (U.S. distributor, Kluwer Boston, Hingham, Mass.). xx, 236 pp., illus. \$39.50. *Forestry Sciences*.

The Future Works! A Selection of Projects Sponsored by the Swedish Secretariat for Future Studies. Translated from the Swedish. Secretariat for Futures Studies, Stockholm, 1982. 144 pp. Paper.

A Gardener's Guide to Propagating Food Plants. Franklin Herm Fitz. Scribner, New York, 1983. viii, 152 pp., illus. \$11.95. Revision of *Completely Self-Sufficient Food-Plant Propagation* (1978).

Gastric Motility. A Selectively Annotated Bibliography. Robert M. Stern and Christopher M. Davis. Hutchinson Ross, Stroudsburg, Pa., 1982 (distributor, Van Nostrand Reinhold, New York). viii, 192 pp. \$19.50.

The High-Power Iodine Laser. G. Brederlow, E. Fill, and K. J. Witte. Springer-Verlag, New York, 1983. x, 184 pp., illus. \$35. Springer Series in Optical Sciences, 34.

The Human Brain. Dick Gilling and Robin Brightwell. Facts On File, New York, 1982. 192 pp., illus. \$15.95.

Human Experimentation and Medical Ethics. Proceedings of a conference, Manila, Sept. 1981. Z. Bankowski and N. Howard-Jones, Eds. Council for International Organizations of Medical Sciences, Geneva, 1982. vi, 506 pp. Paper.

Human Genetics. A. M. Winchester and Thomas R. Mertens. Merrill (Bell and Howell), Columbus, Ohio, ed. 4, 1983. vi, 314 pp., illus. Paper, \$16.95.

Human Genetics. Proceedings of a congress, Jerusalem, Sept. 1981. Batsheva Bonnét-Tamir, Tirza Cohen, and Richard M. Goodman, Eds. Liss, New

York, 1982. Two volumes. Part A, The Unfolding Genome. lii, 531 pp., illus. \$88. Part B, Medical Aspects. xxxiv, 620 pp., illus. \$98. Progress in Clinical and Biological Research, vol. 103.

In Vitro Toxicity Testing of Environmental Agents. Current and Future Possibilities. Proceedings of an institute, Monte Carlo, Monaco, Sept. 1979. Alan R. Kolber, Thomas K. Wong, Lester D. Grant, Robert S. DeWoskin, and Thomas J. Hughes, Eds. Plenum, New York, 1983. Two volumes. Part A, Survey of Test Systems. xx, 554 pp., illus. \$57.50. Part B, Development of Risk Assessment Guidelines. xx, 544 pp., illus. \$57.50. NATO Conference Series I, vol. 5.

Inborn Errors of Metabolism in Humans. Papers from a symposium, Interlaken, Switzerland, Sept. 1980. Forrester Cockburn and Richard Gitzelmann, Eds. Liss, New York, 1982. xvi, 296 pp., illus. \$54.

Incentives for Environmental Protection. Thomas C. Schelling, Ed. MIT Press, Cambridge, Mass., 1983. xx, 356 pp. \$32.50. MIT Press Series on the Regulation of Economic Activity, 5.

Large-Scale Energy Models. Prospects and Potential. Papers from a symposium, San Francisco, Jan. 1980. Robert M. Thrall, Russell G. Thompson, and Milton L. Holloway, Eds. Published for the American Association for the Advancement of Science by Westview, Boulder, Colo., 1983. xiv, 238 pp., \$25. AAAS Selected Symposia Series, 73.

Laser Processing and Analysis of Materials. W. W. Duley. Plenum, New York, 1983. xiv, 464 pp., illus. \$59.50.

Lasers in Nuclear Physics. Proceedings of a conference, Oak Ridge, Tenn., Apr. 1982. C. E. Bemis, Jr., and H. K. Carter, Eds. Harwood, New York, 1982. xii, 510 pp., illus. Paper, \$52.75. Nuclear Science Research Conference Series, vol. 3.

Learning, Development, and Culture. Essays in Evolutionary Epistemology. H. C. Plotkin, Ed. Wiley, New York, 1982. xvi, 490 pp. \$64.95.

Letters from Alabama, (U.S.), Chiefly Relating to Natural History. An Annotated Edition. Philip Henry Gosse. Overbrook House, Mountain Brook, Ala., 1983. xxviii, 324 pp., illus. Paper, \$12.95. Reprint of the 1859 edition.

Mammal Skin. V. E. Sokolov. Translated from the Russian edition (Moscow, 1974) and revised by the author. University of California Press, Berkeley, 1983. viii, 696 pp., illus. \$72.50.

Man-Made Life. An Overview of the Science, Technology and Commerce of Genetic Engineering. Jeremy Cherfas. Pantheon, New York, 1983. x, 272 pp., illus. \$15.95.

Matchmaking. Science, Technology and Manufacture. C. A. Finch and S. Ramachandran. Horwood, Chichester, England, and Halsted (Wiley), New York, 1983. 236 pp., illus. \$65.

Materials Analysis by Ion Channeling. Submicron Crystallography. Leonard C. Feldman, James W. Mayer, and S. Thomas Picraux. Academic Press, New York, 1982. xx, 300 pp., illus. \$42.

The Nature of Geomorphology. Alistair F. Pitty. Methuen, New York, 1982. x, 162 pp., illus. Cloth, \$17; paper, \$6.95.

The New Alchemy Back Yard Fish Farm Book. Growing Fish in Floating Cages. William McLarney and Jeffrey Parkin. Brick House, Andover, Mass., 1983. xii, 78 pp., illus. Paper, \$8.95.

New Approaches in Eukaryotic DNA Replication. Proceedings of a meeting, Cargèse, Corsica, France, June 1980. A. M. de Recondo, Ed. Plenum, New York, 1983. viii, 366 pp., illus. \$47.50.

Optical Information Processing. Francis T. S. Yu. Wiley-Interscience, New York, 1982. xiv, 562 pp., illus., + plates. \$52.50.

Optical Radiation Measurements. Franc Grum and C. James Bartleson, Eds. Vol. 3. Measurement of Photoluminescence. Klaus D. Mielenz, Ed. Academic Press, New York, 1982. xvi, 320 pp., illus. \$47.

The Origin of the Chemical Elements and the Oklo Phenomenon. P. K. Kuroda. Springer-Verlag, New York, 1982. xii, 166 pp., illus. \$39.

Orogeny. John G. Dennis, Ed. Hutchinson Ross, Stroudsburg, Pa., 1982 (distributor, Van Nostrand Reinhold, New York). xviii, 382 pp., illus. \$46. Benchmark Papers in Geology, vol. 62.

Past Climates. Tree Thermometers, Commodities, and People. Leona Marshall Libby. University of Texas Press, Austin, 1983. xiv, 144 pp., illus. \$25.

Pathobiology Annual. Vol. 12. Larry L. Ioachim, Ed. Raven, New York, 1982. x, 358 pp., illus. \$60.

Pathogenesis of Alcoholism. Biological Factors. Benjamin Kissin and Henri Begleiter, Eds. Plenum, New York, 1983. xxx, 636 pp. \$57.50. The Biology of Alcoholism, vol. 7.

Pathological Membranes. Alois Nowotny, Ed. Plenum, New York, 1983. xx, 474 pp., illus. \$55. Biomembranes, vol. 11.

Progress in Neuropathology. Vol. 5. H. M. Zimmerman, Ed. Raven, New York, 1982. xii, 344 pp., illus. \$59.

(Continued on page 198)

BOOKS RECEIVED

(Continued from page 149)

Progress in the Chemistry of Organic Natural Products. Vol. 42. W. Herz, H. Grisebach, and G. W. Kirby, Eds. Springer-Verlag, New York, 1982. viii, 324 pp., illus. \$65.60.

Promoting Adolescent Health. A Dialog on Research and Practice. Papers from a conference, Baltimore, Nov. 1980. Thomas J. Coates, Anne C. Petersen, and Cheryl Perry, Eds. Academic Press, New York, 1982. xx, 484 pp., illus. \$39.50.

Prostaglandins and the Kidney. Biochemistry, Physiology, Pharmacology, and Clinical Applications. Michael J. Dunn, Carlo Patrono, and Giulio A. Cinotti, Eds. Plenum, New York, 1983. xviii, 414 pp., illus. \$49.50.

Protein Folding. Charis Ghélis and Jeannine Yon. Academic Press, New York, 1982. xiv, 566 pp., illus. \$75.50. Molecular Biology.

Protein and Peptide Hormones. John G. Pierce, Ed. Hutchinson Ross, Stroudsburg, Pa., 1982 (distributor, Van Nostrand Reinhold, New York). xx, 460 pp., illus. \$58. Benchmark Papers in Biochemistry, vol. 4.

Psychiatrists on Psychiatry. Michael Shepherd, Ed. Cambridge University Press, New York, 1983. xii, 212 pp., illus. Cloth, \$29.50; paper, \$13.95.

The Psychobiology of Cancer. Automatization and Boredom in Health and Disease. Augustin M. de la Peña, Bergin (Praeger), South Hadley, Mass., 1983. xx, 234 pp. \$25.95.

Psychotherapy. Impact on Psychoanalytic Training. The Influence of the Practice and Theory of Psychotherapy on Education in Psychoanalysis. Papers from a conference, New York, July 1979. Edward D. Joseph and Robert S. Wallerstein, Eds. International Universities Press, New York, 1983. xviii, 174 pp. \$20. International Psycho-Analytical Association Monograph Series, No. 1.

Qualitative Inorganic Analysis. Theodore L. Brown and H. Eugene LeMay, Jr. Prentice-Hall, Englewood Cliffs, N.J., 1983. xii, 144 pp., illus. Paper, \$4.95.

Reproducing Kernel Hilbert Spaces. Applications in Statistical Signal Processing. Howard L. Weinert, Ed. Hutchinson Ross, Stroudsburg, Pa., 1982 (distributor, Van Nostrand Reinhold, New York). xvi, 656 pp. \$61. Benchmark Papers in Electrical Engineering and Computer Science, vol. 25.

Reproduction in Mammals. Book 2, Embryonic and Fetal Development. C. R. Austin and R. V. Short, Eds. Drawings by John R. Fuller. Cambridge University Press, New York, ed. 2, 1983. x, 190 pp. Cloth, \$29.95; paper, \$12.95.

Residue Reviews. Residues of Pesticides and Other Contaminants in the Total Environment. Vol. 86., Francis A. Gunther and Jane Davies Gunther, Eds. Springer-Verlag, New York, 1983. x, 134 pp., illus. \$24.80.

The Return to Cosmology. Postmodern Science and the Theology of Nature. Stephen Toulmin. University of California Press, Berkeley, 1983. vi, 284 pp. \$19.95.

Rift Valleys. Afro-Arabian. A. M. Quennell, Ed. Hutchinson Ross, Stroudsburg, Pa., 1982 (distributor, Van Nostrand Reinhold, New York). xvi, 426 pp., illus. \$50. Benchmark Papers in Geology, vol. 60.

Sala'ilua. A Samoan Mystery. Bradd Shore. Columbia University Press, New York, 1982. xx, 338 pp., illus. Cloth, \$28; paper, \$14.

Secondary Ion Mass Spectrometry. SIMS III. Proceedings of a conference, Budapest, Aug. 1981. A. Benninghoven, J. Giber, J. László, M. Riedel, and H. W. Werner, Eds. Springer-Verlag, New York, 1982. xii, 444 pp., illus. \$37.

Thermal Analysis. Proceedings of a conference, 1982. Bernard Miller, Ed. Wiley-Heyden, New York, 1982. Two volumes. lvi, 1530 pp., illus., + index. \$90.

Turbulent Shear Flows 3. Papers from a symposium, Davis, Calif., Sept. 1981. L. J. S. Bradbury, F. Durst, B. E. Launder, F. W. Schmidt, and J. H. Whitelaw, Eds. Springer-Verlag, New York, 1982. viii, 322 pp., illus. \$64.

The Two Faces of Chemistry. Luciano Caglioti. Translated from the Italian edition (Milan, 1979) by Mirella Giacconi. MIT Press, Cambridge, Mass., 1983. xviii, 218 pp. \$17.50.

Vasodilators in Chronic Heart Failure. H. Just and W.-D. Bussmann, Eds. Springer-Verlag, New York, 1983. xvi, 236 pp., illus. \$29.80.

Vector Analysis and Cartesian Tensors. D. E. Bourne and P. C. Kendall, Van Nostrand Reinhold, New York, ed. 2, 1982. x, 256 pp., illus. Paper, \$19.95.

A Virus of Love and Other Tales of Medical Detection. Charles T. Gregg. Scribner, New York, 1983. x, 310 pp. \$16.95.

We Can Do Without Heart Attacks. Wayne Martin. Carlton Press, New York, 1983. 236 pp. \$9.75.

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During the first year, each successful applicant will attend a university at government expense to study epidemiology, biostatistics, and related subjects. This course work should be creditable toward, but will not necessarily complete requirements for, a degree in public health. During the subsequent two years, individuals will work in association with senior epidemiologists in the participating USPHS agencies (Alcohol, Drug Abuse, and Mental Health Administration; Centers for Disease Control; Food and Drug Administration; National Center for Health Statistics; and the National Institutes of Health) primarily in research studies. A matching procedure akin to the national internship matching will be employed to assure that each individual is assigned to a preceptor whose area of expertise is of interest to the trainee, and consistent with his/her career plans.

Salaries will be provided according to the scale in effect for staff fellows in intramural research at ADAMHA and NIH. The current schedule of remuneration for a physician to be recruited in 1984 is \$30,000 for a non-physician, \$21,000, per annum for the first year, with a \$2,000 increase annually for the second and third years. Educational costs for the first year and relocation expenses are provided in addition. Basic requirements for application to the program are: 1) M.D., doctorate in an allied health profession, or Ph.D. in a biomedical or behavioral science, or equivalent, AND one year of postdoctoral training or experience (by July 1, 1984); 2) U.S. citizenship at time of application, and 3) Acceptability to an accredited university offering an M.P.H. or equivalent, or more advanced public health degree.

To obtain further program details and application forms, **SEND A POSTCARD ONLY, with your PRINTED name and home mailing address to: Robert S. Gordon, Jr., M.D., Chairman, Steering Committee, NIH, Building 1, Room 238, Bethesda, MD 20205. Please DO NOT SEND letters, curriculum vitae, resumes, transcripts, reprints, etc. until you have reviewed the instructions for submission and completed the application form. The USPHS is an equal opportunity employer.**

POSITIONS OPEN

ASSISTANT PROFESSOR— CANCER TOXICOLOGY

Candidates with a Ph.D. in pharmacology or related field or an M.D. and two or more years of relevant postdoctoral experience in cancer research are invited to apply for this position. The successful candidate should show promise of developing an independent research program. Some preference may be given to candidates with active research grants. Send curriculum vitae, general statement of research plans, and three letters of recommendation to:

Curtis D. Klaassen, Ph.D.
Department of Pharmacology, Toxicology
and Therapeutics
University of Kansas Medical Center
Kansas City, Kansas 66103

Position is available immediately. *Kansas University is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF GENETICS/MOLECULAR BIOLOGY HARVARD MEDICAL SCHOOL

The Department of Genetics at Harvard Medical School is seeking to fill at least two positions at the assistant professor level for September 1984. Research laboratories will be located in the Department of Molecular Biology at Massachusetts General Hospital in Boston. Major research funding, including postdoctoral support, will be available through the Department of Molecular Biology. The Department of Genetics is building a strong graduate Ph.D. program and is engaged in teaching genetics to both graduate and medical students. Although no specific research areas will be excluded a priori, applicants should have a strong background in molecular genetics research including significant postdoctoral training. Applicants should submit, prior to 1 September 1983, curriculum vitae, reprints, statement of research interests, and the names of three references to: **Dr. Howard M. Goodman, Chief, Department of Molecular Biology, Massachusetts General Hospital, Boston, Massachusetts 02114.**

Harvard University/Massachusetts General Hospital are Equal Opportunity/Affirmative Action Employers. Qualified women and minority group members are encouraged to apply.

ASSISTANT/ASSOCIATE PROFESSOR—INSECT PHYSIOLOGY. Tenure track, 70 percent research/30 percent teaching position available 1 September 1983. Develop basic research program in insect physiology within incumbent's area of expertise, cooperate in other department research programs, teach annual graduate course on principles of insect physiology and internal morphology, and develop alternate-year course on advanced insect physiology. Require Ph.D. in entomology or related field, prefer teaching and post-Ph.D. experience. Apply before 15 August 1983 by sending résumé, transcripts, summary of current research and future research goals, reprints, and names of three references to: **Ronald J. Kuhr, Head, Department of Entomology, North Carolina State University, Raleigh, N.C. 27650.** *An Equal Opportunity/Affirmative Action Employer.*

THE UNIVERSITY OF CALIFORNIA, IRVINE

Department of Psychiatry and Human Behavior is seeking applicants for a **BIOCHEMIST** to develop a clinical psychopharmacology laboratory. Applicants should have a Ph.D. in biochemistry and at least 5 years of experience in related work. He/she will be responsible for developing and supervising assays of antidepressants and other drugs, biological fluids for neurotransmitters, metabolites, and hormones. Expertise in norepinephrine metabolite measurement is requisite. Applicant should have expertise with GC, HPLC, and computer technology and must have supervised technicians. A record of publications and independent research interests is also needed. Applicant should have experience in supervising the development of a laboratory. Interested parties should send curriculum vitae and list of three to five references to:

Lawrence D. Sporty, M.D.
Clinical Professor and Vice-Chairman
Clinical Services
Department of Psychiatry and Human Behavior
University of California, Irvine
Medical Center
101 City Drive South
Orange, California 92668

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

POSITIONS OPEN

UNIVERSITY OF FLORIDA—Department of Medicine seeks an **ASSOCIATE IN MEDICINE** with a Ph.D. in biochemistry or a related field with laboratory experience to work in field of action and metabolism of peptide hormones. Experience in hormone receptor studies and radioimmunoassays is desirable. Recruiting deadline: 31 July 1983. Anticipated starting date: 1 October 1983. Contact: **R. I. Misbin, M.D., Box J-226, JHMHC, University of Florida, Gainesville, Florida 32610.** *An Equal Opportunity/Affirmative Action Employer.*

CHAIRMANSHIP DEPARTMENT OF MICROBIOLOGY

Applications are solicited for the position of **chairman** of a newly created Department of Microbiology at The University of Texas Medical School at Houston. We seek a candidate dedicated to academic excellence who will develop and lead a department with a research program focused in some general area of molecular biology of prokaryotic or eukaryotic organisms. Resources will be made available for the recruitment and establishment of a faculty committed to the development of active research programs, a graduate program within the Health Science Center, and a basic microbiology course for medical students. Submit statement of interest and curriculum vitae by 31 July to: **Dr. John A. DeMoss, Chairman, Microbiology Search Committee, Department of Biochemistry, The University of Texas Medical School, P.O. Box 20708, Houston, Texas 77225.** *An Equal Opportunity Employer. Women and minorities are encouraged to apply.*

CHAIRMAN, DEPARTMENT OF ANATOMY

Applications and nominations are invited for the position of **chairman** of the Department of Anatomy, Colorado State University (CSU). The successful candidate will assume a major role in the direction and development of programs in modern anatomy and cell biology. Candidate must have a Ph.D. degree in anatomical science and a distinguished academic and research record. A D.V.M. or M.D. degree and experience with national granting agencies are highly desirable. The department chairman will direct teaching and research programs in veterinary and human anatomy, cell biology, neurobiology, reproduction, and associated anatomical sciences. Departmental research facilities include state-of-the-art analytical transmission and scanning electron microscopy and freeze-fracture equipment. Applicants please submit, by 15 September 1983, curriculum vitae and names of three references to: **Edward A. Hoover, Chairman, Anatomy Search Committee, Department of Pathology, Colorado State University, Fort Collins, Colo. 80523.** *CSU is an Equal Opportunity/Affirmative Action Employer.*

CHEMIST, INHALATION TOXICOLOGY. Immediate position for an analytical chemist experienced in the routine and nonroutine characterization of inhalation exposure chamber atmospheres. Position will require involvement in the selection and design of generation systems for aerosols, vapors, and gases; in the selection and application of sampling techniques; in the calibration and operation of all available equipment; and bulk chemical analysis or other characterization of test materials. Position requires M.S. in chemistry and familiarity with GMP's, GLP's, and quality assurance programs. Send résumé with salary history to: **D. S. Loker, Litton Bionetics, Inc., 5516 Nicholson Lane, Kensington, Md. 20895.**

VETERINARY PATHOLOGIST. The Department of Pathology, Colorado State University (CSU), invites applications for a tenure-track, 12-month, research and teaching faculty position. Rank and salary are negotiable and competitive. Candidates should have a firm commitment to research, to postdoctoral training, and to teaching in the veterinary medical curriculum. Service and teaching responsibilities are shared by a department faculty of 21 persons, including 16 veterinary morphologic and clinical pathologists. Desirable qualifications include a D.V.M., a Ph.D. degree in comparative pathology or related field, and ACVP Board-certification. Closing date for applications is 30 September 1983 (date may be extended). Submit curriculum vitae, three letters of professional reference, and a letter of intent detailing professional interests and experience to: **Dr. Stuart Young, Chairman, Search Committee, Department of Pathology, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, Colo. 80523.** *CSU is an Equal Opportunity/Affirmative Action Employer. Equal Opportunity Office: 314 Student Services Building.*

POSITIONS OPEN

CHEMIST—BIOCHEMIST. Postdoctoral position available immediately to study mechanism of a pyrimidine biosynthetic metalloenzyme and to develop mechanism-based inhibitors. SS kinetics, protein modification, synthetic organic chemistry, NMR, and other physical and spectral techniques will be used. NIH salary scale. Send curriculum vitae and two letters of recommendation to: **Dr. Kim D. Collins, Department of Biochemistry, The Johns Hopkins University, 615 North Wolfe Street, Baltimore, Md. 21205.**

The U.S. Department of Agriculture
Human Nutrition Research Center (HNRC)
on Aging at Tufts University

CHIEF: NUTRITION EVALUATION LABORATORY

To manage a laboratory group providing analytical biochemistry support to the Nutrition Center; to develop improved biochemical methods for assessing human nutritional status. Will supervise a staff of seven. Background should include an advanced degree (Ph.D., M.D.) with nutritional biochemistry, analytical or clinical chemistry, and group leadership experience. The position is Tufts University position.

Send curriculum vitae, a description of your research interests, and three letters of reference to:

Thomas D. Sykes
Personnel Office, Room 918
HNRC, 711 Washington Street
Boston, Mass. 02111

CHROMATOGRAPHY SPECIALIST

Research assistant position available for multiuser chromatography laboratory. Seek individual with background, experience, and interest in preparative and analytical chromatography. Knowledge of the principles and practice of analytical biochemistry and quantitative analytical chemistry are essential. Candidate must have training and/or experience in biological, chemical, as well as familiarity with laboratory, analytical equipment, and procedures with a minimum of a B.S. degree in chemistry or biology. The candidate will be required to perform routine analysis of both low and high molecular weight compounds using either GC or HPLC techniques. Interested persons should send curriculum vitae and three letters of reference to: **Dean Franklin, Dalton Research Center, University of Missouri, Columbia, Missouri 65211.**

CLINICAL CHEMIST

The Upjohn Company, a leader in the worldwide research, marketing, and production of pharmaceuticals, is seeking a **clinical chemist** to direct the clinical chemistry section of its Clinical Research Laboratories in Kalamazoo, Michigan. These Laboratories determine the safety and efficacy of the pharmaceutical products being evaluated in Upjohn's worldwide clinical research programs.

The position requires a Ph.D. in clinical chemistry, biochemistry, or equivalent, with eight or more years of experience in clinical laboratory operations and methodology research and development. Excellent verbal and written communication skills are required. Board-certification in clinical chemistry is highly desirable.

Upjohn offers competitive salary, commensurate with experience, and an outstanding benefits package. For confidential consideration, please call, toll free, Upjohn's Corporate Employment Office at 1-800-253-8600 and ask for extension 3-6767. In Michigan, call collect: 616-323-6767. Please refer to ad number 15102 when calling.

An Equal Opportunity Employer, M/F

MICROBIOLOGY. Applications are invited from individuals with postdoctoral experience and demonstrated research excellence, preferably in molecular genetics, for a tenure-track **assistant professorship** in the Department of Microbiology at the Medical College of Wisconsin. The successful candidate will be expected and helped to develop a vigorous research program and participate in the teaching of medical and graduate student courses. Applicants should forward curriculum vitae, a brief statement of research plans, and names of three individuals who can provide references to: **Search Committee, Department of Microbiology, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, Wisconsin 53226.** *Affirmative Action/Equal Opportunity Employer.*

Research Manager, Cardiovascular Diseases DU PONT PHARMACEUTICALS

Major expansion of our Pharmaceutical Research and Development Division has created an outstanding growth opportunity for a cardiovascular scientist to manage and direct our Preclinical Research Program. The successful candidate will lead a biological research group responsible for the discovery of novel therapeutic agents for cardiovascular diseases. The ideal candidate would possess:

- A Ph.D or M.D. Degree.
- 10 or more years postdoctoral experience in cardiovascular pharmacology.
- A proven record of scientific achievement.
- Demonstrated leadership or supervisory capability.
- Excellent communication skills.

We offer a highly competitive compensation and benefit package, including relocation benefits. For confidential consideration, please send curriculum vita and three references, to:

E.I. Du Pont de Nemours & Co., Inc.
Room 38992S, Wilmington,
Delaware 19898.

An Equal Opportunity Employer M/F



Applied Biostatistician & Cell Toxicologist

DO YOU THRIVE ON PROFESSIONAL INTERACTIONS WITH OTHERS? The Lovelace Inhalation Toxicology Research Institute is looking for creative self-starters who are trained and experienced to fill two positions:

APPLIED BIOSTATISTICIAN

Applicant should possess a PhD in biostatistics with 2 or more years of relevant work experience in a research laboratory or equivalent qualifications. Experience with the design and analysis of toxicology studies and previous publications in this area are highly desirable. Typical duties will involve working with other scientists to identify critical scientific questions and designing proper experiments to address them. As a collaborator in these studies, this individual will be responsible for the quality, appropriateness and timeliness of the statistical analysis and evaluations of the resulting experimental data.

CELL TOXICOLOGIST

Applicant should possess a PhD in cell and molecular biology, tumor biology, toxicology or a closely related field with 2 or more years of relevant experience or equivalent qualifications. The individual will work with other scientists to identify critical scientific issues and design appropriate studies. The incumbent is expected to use a broad range of primary and established cell and tissue systems in the study of mechanisms of cell injury, mutagenesis and cell transformations with special reference to cells of the respiratory tract. The research is expected to contribute to our understanding of the mechanisms of induction of functional disorders and cancer in the intact animal from inhaled materials.

The Inhalation Toxicology Research Institute is operated for the U.S. Department of Energy by the Lovelace Biomedical and Environmental Research Institute. Its research programs are designed to use studies in laboratory animals to gain an in-depth understanding of the possible long term health effects in people of inhaled airborne particulate and gaseous emissions associated with different sources of energy.

The results of the Institute's research efforts are published in the peer reviewed scientific literature. Successful applicants must have good writing and verbal communication skills and the ability to work constructively as a member of an interdisciplinary team.

Outstanding employee benefits and competitive salaries and starting date are negotiable. Interested candidates should send a curriculum vitae to the Personnel Manager, Lovelace Inhalation Toxicology Research Institute, P.O. Box 5890, Albuquerque, NM 87185.

*We are an equal opportunity/
affirmative action employer*

FONAR CORPORATION

- A pioneering and innovative company.
- A leader in the exciting/emerging new medical diagnosis field of

Nuclear Magnetic Resonance (NMR) Scanning.

WANTED

• Theoretical Physicists (Ph.D.)

Theoretical physicists with good background in NMR theory (or the ability to master it quickly) and skills in writing for publication are needed for R&D in NMR imaging.

• Theoretical NMR Physical Chemists (Ph.D.)

Theoretical NMR chemists with a firm knowledge of the Bloch equations and the NMR relaxation processes are needed for R&D in NMR imaging. Skills in writing for publication also required.

• Experimental Physicists (Ph.D.)

Experimental physicists with good foundation in theory and with aptitude in designing and developing high technology instrumentation needed for R&D in NMR imaging.

• Electrical Engineers (Recent graduates)

Electrical engineers (Jr. level) with good educational background in digital technology needed for engineering design and development of NMR imaging systems for production, quality assurance and field service. Knowledge of analog electronics, r.f. circuits also helpful.

CONTACT

Mr. John Cassese, Fonar Corp.

110 Marcus Drive, Melville, NY 11747, (516) 694-2929

for an opportunity to grow with a young, dynamic and aggressive company.

POSITIONS OPEN

DIRECTOR, CANCER RESEARCH LABORATORY, UNIVERSITY OF CALIFORNIA, BERKELEY. The University of California at Berkeley is seeking a new director for the Cancer Research Laboratory, which is an Organized Research Unit with state support. Applicants should have demonstrated excellence, originality, and productivity in research. The new director will be expected to develop a strong program to orient the work of the laboratory towards molecular and biochemical aspects of cancer research. The individual appointed to this position will also receive a tenured faculty position in an appropriate academic department. Candidates should submit curriculum vitae, including a list of publications and a description of research material, together with the names of three to five references by 1 October 1983 to: **Dr. Robert Tjian, Search Committee, Department of Biochemistry, University of California, Berkeley, Calif. 94720.** The University of California is an Equal Opportunity/Affirmative Action Employer.

DIRECTOR, KRESGE HEARING RESEARCH INSTITUTE—This position is vacant following Dr. Merle Lawrence's retirement. The candidate should be an established investigator with an international reputation in the area of auditory or vestibular research. The director is expected to provide scientific and administrative leadership for the Institute and to develop and coordinate the research programs at the Institute and the Department of Otorhinolaryngology. Send curriculum vitae by 31 August 1983 to: **Dr. Jochen Schacht, Chairman, Search Committee, Kresge Hearing Research Institute, Box 28, University of Michigan, Ann Arbor, Michigan 48109.** The University of Michigan is a nondiscriminatory, Affirmative Action Employer. Code 04.

EXPERIMENTAL COGNITIVE PSYCHOLOGIST. The University of California at Irvine anticipates a possible opening at the senior professor level for a cognitive scientist specializing in the experimental and mathematical psychology of attention and performance. Candidates should have a distinguished record in both psychological research and teaching, including demonstrable success in teaching the introductory course, and be prepared to contribute to a cognitive science program with research foci in mathematical psychology, linguistics, and perception. Please send curriculum vitae, and names of three references to:

John I. Yellott, Jr.
Chair, Cognitive Science Group
School of Social Sciences
University of California
Irvine, Calif. 92717

To ensure consideration, materials should be submitted by 31 August 1983. *University of California is an Equal Opportunity/Affirmative Action Employer.*

The University of Michigan Medical School, **Department of Radiology**, has on occasion open **FACULTY POSITIONS** within the department and its affiliated hospitals. Physicians filling these positions will take part in the programs of patient care, teaching, and research in the Department of Radiology. They will supervise the activities of house officers and aid in the teaching of house officers and medical students. Qualified applicants must be American Board of Radiology-certified and Board-eligible. Previous training or work experience in an academic institution as well as demonstration of previous academic research and teaching experience are desirable. Academic rank will depend on qualifications and experience.

Interested applicants should contact: **William Martel, M.D., Chairman, Department of Radiology, The University of Michigan Medical School, Ann Arbor, Michigan 48109.** A nondiscriminatory, Affirmative Action Employer.

INSTRUCTOR (PHYSIOLOGY)

A postdoctoral position with the academic rank of instructor is available 1 September 1983 to conduct research on vascular smooth muscle contraction, with emphasis on regulatory mechanisms such as myosin phosphorylation. Some teaching will be required. Preference will be given to individuals with experience in contractile protein biochemistry or muscle mechanics. Support is available for 5 years with a starting salary of up to \$20,000, depending on experience. Applicants should have an M.D. or Ph.D. degree in physiology or a related field. Send curriculum vitae and a list of three references to: **Dr. Steven Driska, Department of Physiology and Biophysics, Medical College of Virginia, Box 551 MCV Station, Richmond, Va. 23298.** An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

FACULTY POSITION MOLECULAR BIOLOGY UTAH STATE UNIVERSITY (USU)

The Department of Biology seeks a tenure-track assistant professor with interest in microbial and molecular genetics. A Ph.D. is required, and candidates with postdoctoral research experience will be given preference. Selection will be based on accomplishments and potential for excellence in research and teaching. The appointee will be expected to administer a vigorous research program and teach undergraduate and graduate courses in microbiology. USU is a growing land-grant institution with 12,000 students and is attractively situated in the Wasatch Mountains of Northern Utah. Send curriculum vitae, transcripts, research plans, and three reference letters by 15 September 1983 to: **Dr. J. Takemoto, Search Committee, Department of Biology, UMC-53, Utah State University, Logan, Utah 84322.**

An Affirmative Action/Equal Opportunity Employer

FACULTY POSITIONS. Several openings are available immediately for junior and senior positions in the Department of Physiology. We seek applicants with a background and research interests which emphasize the cellular and molecular basis of physiology. Special consideration will be given to candidates with expertise in cellular or subcellular physiology of nerve or muscle with emphasis on membrane biophysics. Candidates should submit curriculum vitae, a complete list of publications, and a brief statement summarizing present and future research interests and objectives, and have three letters of reference sent to: **Michael M. Behbehani, Chairman of the Search Committee, Department of Physiology, M.L. 576, University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, Ohio 45267.** *An Affirmative Action/Equal Opportunity Employer.*

MOLECULAR AND CELLULAR GENETICIST. A tenure-track position for an individual with postdoctoral experience in molecular and cellular biology. Will be part of a research and teaching group being constructed to support our undergraduate in vitro cell biology and graduate programs. Responsibilities include teaching courses in genetics, developmental biology, and in modern laboratory technologies of molecular and cellular biology. The candidate will be expected to conduct an active, fundable research program in the molecular biology of eukaryotic cells. Date of appointment: 1 September 1983. Send curriculum vitae, reprints, statement of research goals, and three letters of recommendation no later than 1 August 1983 to: **Dr. Ralph M. Clark, Acting Chairperson, Department of Biological Sciences, Box 246, State University of New York, Plattsburgh, N.Y. 12901.** We encourage applications from qualified minority and woman candidates. *An Equal Opportunity/Affirmative Action Employer.*

MUSCLE BIOLOGIST/BIOCHEMIST

The Bioproducts Laboratory of Dow's Central Research is receiving résumés for the above named position. Long-range programs are conducted within this laboratory and successful candidates will actively contribute to Dow's expansion into biotechnology in the future. The individual will join a team of scientists dedicated to basic research in the field of animal growth, and will be expected to develop independent research programs in the area of muscle cell biology with emphasis on regulation of skeletal muscle growth. Candidates must hold a Ph.D. degree and have at least 2 years of postdoctoral experience. Relevant experience should include one or more of the following: muscle cell culture, monoclonal antibody production and utilization, and muscle protein chemistry.

Submit curriculum vitae, position objective, and references by 31 August 1983 to: **Dr. Gerald H. Brandt, P.O. Box 1655, The Dow Chemical Company, Midland, Michigan 48640.** *Dow is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION IN NEUROBIOLOGY available for an electrophysiologist with an interest in investigating the mechanism of action of benzodiazepines and beta-carbolines as modulators of GABA action in brain and spinal cord cell cultures. Experience with intracellular microelectrode recording and/or patch-clamp techniques and computer analysis; \$16,000 to \$20,000. Send curriculum vitae to: **Dr. David H. Farb, Department of Anatomy and Cell Biology, The State University of New York, Downstate Medical Center, Brooklyn, N.Y. 11203.** Telephone: 212-270-1308.

POSITIONS OPEN

NEUROSCIENTIST (recent Ph.D. or equivalent in experience) with computer skill (Basic, Fortran and/or Assembly language). Knowledge of neuroanatomy and/or receptor binding desirable. Familiar with behavioral techniques. To study regional drug action and correlated behavioral measures, using radioautography. Submit curriculum vitae to: **Dr. C. A. Boast, Neuroscience Subdivision, CIBA-GEIGY Corporation, Summit, N.J. 07901.**

PHARMACOGNOSY (MEDICINAL NATURAL PRODUCTS)

Tenure-track, assistant professor with demonstrable competence in one or more of the following areas of research: (i) microbial biotransformation/metabolism, (ii) isolation/characterization of natural products, (iii) plant tissue culture, or (iv) recombinant DNA/monoclonal antibodies related to medicinal natural products or drugs. Send letter describing interests, curriculum vitae, and names of three references to: **George H. Constantine, Jr., Ph.D., School of Pharmacy, Oregon State University, Corvallis, Ore. 97331.** Deadline: 15 August 1983.

Affirmative Action/Equal Opportunity Employer, complies with Section 504 of the Rehabilitation Act of 1973.

PHYSIOLOGIST

A full-time, tenure-track position for a physiologist at the assistant or associate professor level is available beginning 1 July 1983. Preference is for a scientist with cardiovascular research, but renal or respiratory physiology will also be considered. Duties include the development and coordination of a physiology course for freshmen medical students, and an active research program. There is the possibility to develop graduate courses in area of specialization in the future. Postdoctoral teaching/research experience is desirable. Applicants should send the names/addresses of three references and curriculum vitae to:

**Barth H. Ragatz, Ph.D., Associate Director
Fort Wayne Center for Medical Education
Indiana University School of Medicine
2101 Coliseum Boulevard-East
Fort Wayne, Indiana 46805**

Indiana University is an Equal Opportunity/Affirmative Action Educator, Employer, and Contractor, M/F.

Two positions anticipated for 1 September. **PHYSIOLOGIST**, Ph.D. to teach human physiology to biology majors and nursing students (temporary). **GENETICIST**, Ph.D. to teach genetics and general biology to graduate and undergraduate students. Send applications with résumé and three references to: **Dr. James Rastorfer, Department of Biology, Chicago State University, 95th Street and King Drive, Chicago, Illinois 60628.**

Affirmative Action/Equal Opportunity Employer

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE position available now for ultrastructural studies of retinal capillary permeability. Background in cell biology and experience in electron microscopy and cytochemistry desirable. Send curriculum vitae and names of three references to: **Dr. Edward Essner, Department of Ophthalmology, Wayne State University School of Medicine, 540 East Canfield Avenue, Detroit, Mich. 48201.**

POSTDOCTORAL POSITION available 1 September 1983 to conduct studies on transcapillary fluid exchange and regulatory mechanisms in the microcirculation. Send résumé and names of three references to: **Dr. Robert W. Gore, Department of Physiology, College of Medicine, University of Arizona, Tucson, Arizona 85724.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately in the Section of Reproductive Studies to join research group studying a wide range of endocrinological and biochemical aspects of fetal development and labor and delivery. Candidates with strong background in either radioimmunoassay, HPLC, and cell dispersion systems will be considered. Please submit curriculum vitae, statement of research interests, and three letters of reference to:

**Dr. Peter W. Nathanielsz
Department of Theriogenology
New York State College of Veterinary Medicine
Cornell University
Ithaca, N.Y. 14853**

Cornell University is an Affirmative Action/Equal Opportunity Employer.

Membrane Pathobiology

Hahnemann University of the Health Sciences

The Department of Pathology and Laboratory Medicine invites applications for positions in the Membrane Pathology group, which is concerned with structure-activity relationships in biological membranes.

Membrane Biophysicist/Biochemist

The candidate should hold a PhD degree in biophysics, physical chemistry or biochemistry and should qualify for an appointment at the Assistant or Associate Professor level. Preference will be given to individuals with experience in physical techniques, such as fluorescence polarization, electron paramagnetic resonance, nuclear magnetic resonance, etc. Areas currently under study include membrane fluidity, lipid-lipid and protein-lipid interactions, and relation of molecular order to partition coefficients of drugs and anesthetics.

Lipid Biochemist

The candidate should hold a PhD degree in biochemistry and should qualify for appointment at the Assistant or Associate Professor level. Experience in the analysis of membranes, phospholipids and fatty acids desirable.

3 Post-Doctoral Positions in Membrane Biochemistry

1. Effects of toxins, alcohol and anesthetics on biological membranes.
2. Effects of hormones on biological membranes, including receptors, hormone-secretion coupling, and ion flux.
3. Mechanisms of membrane assembly, including studies of protein and phospholipid incorporation into biological membranes.

Send curriculum vitae and names of 3 references to: **Emanuel Rubin, M.D., Chairman, Department of Pathology and Laboratory Medicine, Hahnemann University, Broad & Vine, Philadelphia, PA 19102. Affirmative Action Employer.**

ASSISTANT DIRECTOR FOR ADVANCED DEVELOPMENT PROGRAMS

National Optical Astronomy Observatories
Tucson, Arizona

AURA invites nominations and applications for the position of Assistant Director for Advanced Development Programs. This is a new position which reports immediately to the director of the combined observatories and carries responsibilities for the development and testing of promising new initiatives for astronomical instrumentation. An immediate initial responsibility of the incumbent will be for the continuation of the NNTT technology development project within AURA, for its orderly transition through the impending reorganization of AURA's NSF-funded observatories, and finally, for the prosecution of all phases of the NNTT from conception through proposal preparation, and subsequently through construction and commissioning of the facility to initiation of operation. The post is to be located in Tucson, Arizona, and will carry an appointment at an appropriate level to the scientific staff of the AURA-managed Observatories.

This position carries prime responsibility for the successful implementation of a program of profound significance to international astronomy. Applicants, correspondingly, should have a distinguished record of research in astronomy, have made contributions to contemporary astronomical instrumentation, have a demonstrated competence in the management of major instrumentation projects, and should be prepared to accept a personal commitment to follow this complex project through to a successful conclusion.

Applications, giving names of at least three professional references, should be forwarded to:

Dr. John T. Jefferies
AURA, Inc.

1002 North Warren Avenue
Tucson, Ariz. 85719

And be mailed so as to reach that address by 1 September 1983. Inquiries concerning this position can be more expeditiously handled by addressing them in the interim to: **Dr. Jefferies, at the Institute for Astronomy, 2680 Woodlawn Drive, Honolulu, Hawaii 96822; telephone: 808-948-8566.**

AURA is an Equal Opportunity/Affirmative Action Employer.

INDOOR AIR QUALITY CHEMISTS (2)

The Lawrence Berkeley Laboratory is seeking two outstanding chemists to join its Building Ventilation and Indoor Air Quality Program. Candidates for both positions should have demonstrated excellence in previous independent research and writing and should have substantial instrumental backgrounds.

STAFF SCIENTIST III

Initial responsibilities for the more senior person will be the program's research on organic pollutants, including development of methodologies for characterization of emissions from building materials and for field sampling of airborne organics in office buildings. You should have substantial experience in scientific leadership, and will be expected to contribute substantially to the overall leadership of the program. Familiarity with GC and GC-MS would be an asset, as would be experience in environmental chemistry or air quality monitoring or modeling. Prefer Ph.D. in analytical chemistry, physical organic chemistry or physical chemistry. APPLICANTS FOR THIS POSITION, SPECIFY JOB # A/0704.

STAFF SCIENTIST II

You will assume responsibility for the program's investigation of pollutants emitted from combustion appliances. Experiments are performed in a laboratory chamber and at field sites using a fully instrumented mobile laboratory. Requires previous experience supervising technical personnel. Familiarity with atmospheric or environmental chemistry, air quality monitoring or modeling preferred. Prefer Ph.D. in analytical chemistry. APPLICANTS FOR THIS POSITION, SPECIFY JOB # A/2067.

Please send two resumes to: **Lawrence Berkeley Laboratory, Employment Office, Building 65, One Cyclotron Road, Berkeley, CA. 94720.** An equal opportunity employer, m/f/h.

**Lawrence Berkeley
Laboratory**

SQUIBB

QUALIFIED PROSTAGLANDIN SCIENTIST

The Squibb Institute for Medical Research has an immediate opening in the Pharmacology Department for a well-qualified scientist to direct and to actively participate in the development of drugs that act by modulation of the arachidonic acid cascade.

This is a key position within the department and thorough previous experience in Prostaglandin research is an absolute necessity. Proven ability to lead a research team and to pursue independent pharmacological research are prerequisites.

We offer an excellent starting salary and comprehensive benefits package. Qualified applicants are invited to submit a CV, including salary requirements to, **Department RGR, Employment Office, E.R. Squibb & Sons, Inc., P.O. Box 4000, Princeton, NJ 08540. We will accept direct applicant response only.** Equal Opportunity Employer, M/F/H/V.

POSITIONS OPEN

POSTDOCTORAL POSITIONS—The newly developed Division of Immunology of The Christ Hospital Institute of Medical Research invites applications for postdoctoral research positions. Initial appointments are for 2 years. Successful candidates will have the opportunity to select among a broad range of research projects dealing with molecular and cellular aspects of host resistance in health and disease. Submit curriculum vitae, description of research experience, and names of three references to: **Ann B. Bjornson, Ph.D., Member and Director, Division of Immunology, The Christ Hospital Institute of Medical Research, 2141 Auburn Avenue, Cincinnati, Ohio 45219. Equal Opportunity Employer.**

POSTDOCTORAL POSITION IN PROTEIN CRYSTALLOGRAPHY

Postdoctoral research associate to university professor. Solve and refine protein structures by x-ray crystallography. Ph.D. in chemistry, biophysics, or biochemistry with dissertation in the area of x-ray crystallography. Previous postdoctoral research experience in x-ray structure determination of proteins or macromolecules, including refinement and molecular graphics. Forty hours per week; \$18,000 per year. Apply at: **The Texas Employment Commission, Houston, Texas, or send résumé to: The Texas Employment Commission, TEC Building, Austin, Texas 78778, Job Order Number 3181342. Ad paid by an Equal Opportunity Employer.**

POSTDOCTORAL POSITION IN DNA REPAIR AND RECOMBINATION. Available October 1983 (other dates possible) for work in UV repair and/or UV-stimulated recombination using phage lambda/*Escherichia coli* systems; collaborations with colleagues at nearby NIH, Frederick Cancer Research Facility, Johns Hopkins University. Experience in bacterial genetics and/or DNA biochemistry highly desirable. Compensation: \$16,000 to \$18,000 per year, depending on experience, plus substantial fringe benefits. Send curriculum vitae to: **Professor John Hays, Department of Chemistry, University of Maryland Baltimore County, Catonsville, Maryland 21228. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION. Peptide and protein chemistry, enzymology—cholinesterases, phosphatases, angiotensin system, and so forth. Write:

**I. B. Wilson
Department of Chemistry
University of Colorado
Boulder, Colorado 80309**

Affirmative Action/Equal Opportunity Employer

POSTDOCTORAL POSITION available for 2 years beginning 1 September 1983, in the Leprosy Laboratory, Centers for Disease Control, for studies on DNA/genetics of *Mycobacterium leprae*, including taxonomy and in vitro expression of genes. The applicant should have experience in DNA genetics of prokaryotes and should be a U.S. citizen. Salary: \$20,000 to \$24,500, with standard benefits for federal employees (leave, health and life insurance, social security coverage). Send curriculum vitae, brief statement of research interests, and three letters of reference to: **Louise M. Griggs, Personnel Management, Centers for Disease Control, 1600 Clifton Road, NE, Atlanta, Georgia 30333. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION available for a person with training in biochemistry or pharmacology to carry out biochemical studies on molecular aspects of dopamine receptor/adenylate cyclase coupling. Position available immediately. Deadline for receipt of applications is 30 July 1983. Send résumé and three letters of recommendation to: **Dr. Y. C. Clement-Cormier, Department of Pharmacology, University of Texas Medical School, P.O. Box 20708, Houston, Texas 77225.**

Equal Opportunity Employer; women and minorities are encouraged to apply.

RESEARCH ASSISTANT

B.A./B.S. minimum with course work in microbiology, genetics, biophysics, or bioengineering. To work on basic aspect of the application of genetically engineered bacteria to industrial production. Send curriculum vitae and names of references to:

**Search Committee
Department of Cellular and Developmental Biology
Biosciences West, Room 308
University of Arizona
Tucson, Ariz. 85721**

The University of Arizona is an Equal Opportunity/Affirmative Action Employer. Closing date: 22 July.

POSITIONS OPEN

POSTDOCTORAL POSITION IN REPRODUCTIVE PHYSIOLOGY available in August to study mammalian fertilization. Experience with in vitro fertilization, culture, and micromanipulation of embryos desirable. Opportunities to interact with a large, interdisciplinary group studying mammalian reproductive biology. Send curriculum vitae and have three letters of recommendation sent to: **George Seidel, Animal Reproduction Laboratory, Colorado State University, Fort Collins, Colo. 80523. Equal Opportunity/Affirmative Action Employer. Equal Opportunity Office: 314 Student Services Building.**

POSTDOCTORAL POSITION available immediately to study mechanisms of oncogene activation and chromosomal rearrangements in human tumors. Experience in recombinant DNA technology desirable. Send curriculum vitae and names of three references to: **Dr. Riccardo Dalla Favera, Department of Pathology and New York University Cancer Center, New York University School of Medicine, 550 First Avenue, New York, N.Y. 10016. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE to study the localization, biochemical regulation, and functions of melatonin-synthesizing cells of vertebrate retina. Send curriculum vitae and names of three references to: **Dr. P. Michael Iuvone and Dr. Joseph C. Besharse, Department of Pharmacology, Emory University School of Medicine, Atlanta, Ga. 30322.**

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POSTDOCTORAL RESEARCH ASSOCIATE for project on nerve membrane structure/function. Background in freeze-etch, neurobiology, cell biology preferred. Ph.D. in cell biology or related area.

POSTDOCTORAL POSITION for Ph.D. in biochemistry with background in enzymology and molecular biology for active research laboratory.

Send résumés, stating position of interest, to: **Miriam Kerans, Recruitment Director, New York University Medical Center, 560 First Avenue, New York, N.Y. 10016. An Affirmative Action/Equal Opportunity Employer, M/F.**

POSTDOCTORAL SCIENTIST: Will perform basic pulmonary research utilizing baboons, including studies of pulmonary oxygen toxicity and pulmonary bacterial infection. Will prepare articles and reports summarizing research. Requires M.D. with residency or fellowship in pulmonary medicine with recent participation in pulmonary research. Salary: \$17,784 per year. Apply at: **The Texas Employment Commission, San Antonio, Texas, or send résumé to: Texas Employment Commission, TEC Building, Austin, Texas 78778, Job Order Number 2807528. Advertisement paid for by an Equal Opportunity Employer.**

PROFESSOR OF GEOGRAPHY AND DIRECTOR OF THE INSTITUTE OF ARCTIC AND ALPINE RESEARCH

The University of Colorado at Boulder seeks a senior geographer for a **tenured professorship** in its Department of Geography and for **director of the Institute of Arctic and Alpine Research (INSTAAR)**, to begin 1 July 1984. The 9-month salary is open with consideration given to experience and education, and there will be a negotiated summer stipend. The appointment as director of INSTAAR is for 3 years and is subject to renewal. The appointee will carry a reduced teaching load in the Geography Department while serving as director of INSTAAR. Candidates must have distinguished research and teaching records and must have demonstrated experience and leadership in science administration. INSTAAR is an interdisciplinary research institute that emphasizes the study of earth and environmental sciences, especially as they pertain to high altitudes, high latitudes, and to cold paleoenvironments of the Quaternary period. Current research emphasis is in Arctic areas and we seek balance by encouraging alpine specialists, but we are especially looking for a geographer with a breadth of experience in both Arctic and alpine research. Submit letter of application, including curriculum vitae and names and addresses of at least four referees. The Search Committee will solicit the letters from referees. Applicants are responsible for all materials reaching the chair of the Search Committee no later than 1 November 1983. Apply: **Professor A. David Hill, Chair of Geography/INSTAAR Search Committee, Campus Box 260, University of Colorado, Boulder, Colo. 80309. The University of Colorado is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION—ORGANIC CHEMISTRY/DRUG METABOLISM. Opportunity to develop potentially useful new antitumor agents and to study the pharmacokinetics and metabolism of those compounds. Research will include organic synthesis, in vitro and in vitro drug metabolism, pharmacokinetics, and related pharmacologic studies. Opportunity to participate in a number of collaborative studies available. Send curriculum vitae and list of three references to: **Matthew M. Ames, Ph.D., Mayo Clinic, Rochester, Minnesota 55905. An Equal Opportunity/Affirmative Action Institution.**

POSTDOCTORAL RESEARCH POSITION available September 1983, to study the molecular biology and genetics of cellulase biosynthesis and secretion in fungi. Recent Ph.D. in microbiology, biochemistry, or related area. Please send résumé and names and telephone numbers of three references to: **B. S. Montencourt, Department of Biology and the Biotechnology Research Center, Room 31, Lehigh University, Bethlehem, Pa. 18015.**

RESEARCH ASSISTANT UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

The Department of Biological Chemistry, Protein Sequencing Facility, is seeking a candidate to do basic research involving protein sequencing, N-terminal amino acid analyses, PTH-amino acid separation by HPLC, manual protein sequencings and data analyses. B.S. in biochemistry, chemistry, or related field supplemented by one or more years of research experience. M.S. desirable. Experience in protein chemistry is highly desirable. Send résumé to:

**Andrew Perez
Employment Representative
University of Michigan Hospitals
300 North Ingalls N18A18
Ann Arbor, Michigan 48109**

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RESEARCH ASSOCIATE, Ph.D. to join in a study of restriction fragment length polymorphisms in the human genome. Applicants with experience in molecular genetics and recombinant DNA technology preferred. Initial 1-year appointment with possible renewal. Send curriculum vitae plus names, addresses, and telephone numbers of three references to: **Dr. Michael Litt, Biochemistry Department, Oregon Health Sciences University, Portland, Ore. 97201; telephone: 503-225-7717. An Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE to do research on molecular mechanism responsible for expression of abnormal immunoglobulin genes in mouse and human systems. Required: Ph.D. in biochemistry and molecular biology. Four years of research experience. Strong background in recombinant DNA technology, somatic cell genetics of antibody production, production of monoclonal antibodies by hybridoma technology, RNA metabolism with emphasis on heterogeneous nuclear RNA research, gene splicing, microinjection, and micromanipulation techniques required in cell research. Forty hours per week; \$24,000 per year. Résumé: **Job Order 3336-M, Employment Security, Hurley Building, Government Center, Boston, Mass. 02114.**

RESEARCH ASSOCIATE/SURFACE ANALYSIS—To operate surface analysis facility including maintenance, operation, and scheduling of XPS/AES/ISS instruments in the Institute of Materials Science. Instruct users and conduct own research. Ph.D. or equivalent experience in surface analysis required. Start 1 September 1983. Salary negotiable. Submit curriculum vitae and three recommendations by 22 July 1983 to: **Dr. S. L. Sulb, Department of Chemistry, UNIVERSITY OF CONNECTICUT, Storrs, Conn. 06268.**

RESEARCH SCIENTIST/INSTRUCTOR to study the molecular interaction between receptor/adenylate cyclase coupling in brain. Position requires Ph.D. in biochemistry or molecular pharmacology plus at least two years of postdoctoral work. Candidate must have experience with protein purification techniques. Position available immediately. Salary commensurate with qualifications and experience. Deadline for receipt of applications is 30 July 1983. Send résumé and three letters of recommendation to: **Dr. Y. Clement-Cormier, Department of Pharmacology, University of Texas Medical School, P.O. Box 20708, Houston, Texas 77225.**

Equal Opportunity Employer; women and minorities are encouraged to apply.

Biological Research Scientist

The Dow Corning Corporation, a Fortune 500 Company and the world's leading producer of silicones, has a position currently available in our Health Care Research Group located in Midland, Michigan. Applicants must possess: A PhD in either physiology, cell biology or bio-materials (not bio-engineering unless experience is tissue interface related). Also, 2-4 years post-Doctorate or industrial experience with the following desirables:

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- Knowledge/experience in tissue and bio-materials interface
- Prior publications
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A challenging position with growth potential is available for a Protein Chemist in our Sterile Products Development Group. The individual who fills this position will be responsible for establishing an applied research and development program with biopolymers of pharmaceutical interest. This will involve initiating and conducting studies concerning physical properties of biopolymers applicable to formulation development. The individual in this position will closely interact with our Pharmacology, Protein Chemistry and Product Development Groups concerning drug formulation.

Qualifications for the position are a PhD in protein chemistry, 2-3 years of post doctoral or industrial experience and an ability to productively interact with various departments. Comprehensive knowledge of protein chemistry is essential. **Position SCI-PM1.**

Sr. Scientists Sterile Products Development

Two positions are available in our Sterile Products Development Group for individuals to conduct research on pre-formulation, formulation and stability studies of polymer pharmaceutical dosage forms. In these positions, successful candidates will be responsible for planning, developing, conducting and evaluating laboratory experiments on these formulations.

Qualifications for the positions are a PhD in Pharmaceutical Sciences and a minimum of 5 years experience in industrial dosage form development, especially with biopolymers. Statistical and computer applications are highly desirable. Knowledge of GLP and GMP compliance in preparation for IND and NDA is mandatory. **Position SCI-PM2.**

We offer excellent compensation, comprehensive benefits and liberal relocation assistance. In addition, our staff enjoys exceptional career opportunities in a creative team environment. For immediate consideration, please send your resume and the names of three references, including appropriate position number, to **Human Resources:**

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POSITIONS OPEN

POSTDOCTORAL POSITIONS IN IMMUNOLOGY available beginning 1 September 1983 for 2 years to study murine T cell responses to syngeneic leukemia virus-induced tumors via immunologic, genetic, virologic and/or molecular biologic approaches. Competitive salary commensurate with training and experience. Send curriculum vitae and names of three references to: **Dr. William R. Green, Department of Microbiology, Dartmouth Medical School, Hanover, N.H. 03755.**

POSTDOCTORAL RESEARCH FELLOW IN MEMBRANE BIOLOGY—Department of Biomedical Research seeks a postdoctoral research fellow/associate to join an active group interested in structure and function of normal and abnormal blood cell membranes. The applicant should have a background in preparation of cell membranes, protein and lipid characterization, and/or electron microscopy. Academic appointment at Tufts University School of Medicine, depending on background and qualifications. Position open immediately. Send curriculum vitae to: **Jiri Palek, M.D., Department of Biomedical Research, St. Elizabeth's Hospital of Boston, 736 Cambridge Street, Brighton, Mass. 02135. An Equal Opportunity Employer.**

RESEARCH ASSOCIATE

Postdoctoral research position for the study of the enzymology of chlorophyll biosynthesis. Applications will be accepted until 1 August 1983 or until a satisfactory candidate is selected. Address curriculum vitae and three letters of reference to: **Professor C. A. Rebeiz, University of Illinois, Laboratory of Plant Pigment Biochemistry and Photobiology, 1103 West Dornier Drive, Urbana, Ill. 61801.**

The University of Illinois is an Affirmative Action/Equal Opportunity employer.

RESEARCH BIOCHEMIST

Research associate in Obstetrics-Gynecology Department of a hospital responsible for laboratory work on in vitro fertilization in humans (75 percent) and development of tests to use as biomarkers for detecting breast cancer (25 percent). Must have Ph.D. in biochemistry with specialization in reproductive endocrinology and course work in anatomy and physiology, and practical experience in different biomedical analytical techniques. Postdoctoral experience required in tissue culture studies, metabolic experiments in humans and animals, radioimmunoassay of different hormones, receptor assays, prostaglandin metabolism, clinical trials, and zona-free hamster tests; sperm analysis training preferred; \$20,000 per year. Send résumé to: **Maryland Department of Human Resources, Employment Security Administration, Room 204, 1100 North Eutaw Street, Baltimore, Maryland 21201, Reference Job Order Number 4100394.**

SCIENTIFIC ILLUSTRATOR. Biochemistry, genetics, molecular biology, or cell biology background required, preferably with Ph.D. and/or teaching or writing experience, to prepare creative illustrations for textbooks in these areas. Must be able to illustrate biomolecular concepts, experimental procedures, and cell activities. Please submit samples of recent work with résumé. Middle Atlantic—New York area. **Box 171, SCIENCE.**

STAFF RESEARCH ASSOCIATE IV. \$1926 to \$2322 per month. Assist and collaborate in ongoing research involving scanning, transmission electron microscopy, and x-ray microanalysis of frozen hydrated plant material. For application materials, contact: **The University of California, Davis, telephone: 916-752-7140, Monday through Friday, by 31 August. Refer to Job Number 0613. Equal Opportunity Employer.**

ZOOLOGIST. Assistant professor of biology. Strong field experience; master's degree required. Duties include teaching vertebrate natural history, invertebrate zoology, comparative anatomy, general ecology, human anatomy and physiology, and general zoology, 9-month, tenure-track position. Starting date is 15 August 1983. Apply by 22 July 1983.

Salem College is a small college located in Salem, West Virginia. Stressing value-oriented inquiry together with opportunities to test career-related activities, the College offers a variety of programs leading to associate, baccalaureate and master's degrees.

Apply to: **Dean Gary S. McAllister, Salem College, Salem, W.Va. 26426. Equal Opportunity/Affirmative Action Employer.**

COURSES

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The course will cover the following experiments:

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Lectures will focus on structure and function of genes in different biological systems: Stanley Artz (Davis), Fred Sherman (Rochester), Richard Roberts (Cold Spring Harbor), Peter Seeburg (San Francisco), Daniel Vapnek (Newbury Park). Laboratory space will be available for 20 participants. The course fee will be \$335, exclusive of meals and lodging. Inexpensive accommodations close to the campus will be reserved. Address your application with a short résumé of your research interest not later than 1 August 1983 to:

**Dr. Joachim Messing
Department of Biochemistry
University of Minnesota
St. Paul, Minn. 55108**

TRAINEESHIPS

POSTDOCTORAL RESEARCH TRAINEESHIP, starting 1 September 1983, or after. U.S. citizen or permanent resident. NIH guidelines for stipend. Areas of study include synthesis and characterization of angiotensin-1-converting enzyme and other endothelial cell membrane proteins and biochemistry and metabolism of lung injury. Contact: **Dr. Barry Fanburg, Tufts-New England Medical Center, 171 Harrison Avenue, Boston, Mass. 02111. An Affirmative Action/Equal Opportunity Employer.**

FELLOWSHIPS

FORESTRY, FISHERIES, WILDLIFE

The Natural Resources Management Program, a graduate department at Simon Fraser University, invites applications from Ph.D.'s who wish to be sponsored for an NSERC University Research Fellowship. This position, which is at the assistant professorship rank, is tenable for 3 years beginning in 1984, and is extendable for another 2 years. This appointment is dependent on NSERC approval and funding. Although the primary responsibilities will be in the area of research, there will also be some teaching and administrative duties.

Applications are requested in the fields of fisheries management, wildlife management, or forestry, and applicants with postdoctoral experience will be given preference. *In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and landed immigrants.* The closing date for applications is 15 September 1983.

Send curriculum vitae and sample publications to the address below. Also, have three referees send letters of reference directly to:

**Dr. J. C. Day, Director
Natural Resources Management Program
Simon Fraser University
Burnaby, British Columbia, Canada V5A 1S6**

POSTDOCTORAL FELLOWSHIP

The Department of Pathology at the University of Colorado is interested in an individual whose background is in biochemistry, cell biology, virology. The department's interest is in experimental pathology with focus in tumor virology, developmental biology, teratocarcinoma, and cell surfaces of normal and malignant cells. This position will be for 1 year with an extension into a possible second or third year. For those who are interested, please send curriculum vitae with names of three references to: **Dr. John Lehman, Chairman, Graduate Program, University of Colorado School of Medicine, Department of Pathology, 4200 East 9 Avenue, Denver, Colo. 80262. An Equal Opportunity/Affirmative Action Employer/Institution.**

POSTDOCTORAL FELLOWSHIPS. Two positions available immediately for individuals with Ph.D. for a program in molecular parasitology. Experience in molecular biology and cloning is essential for one position and in protein chemistry and immunochemistry for the other. Send curriculum vitae and names of three references to: **Dr. Adel Mahmoud or Dr. Bruce M. Greene, Department of Medicine, Case Western Reserve University, University Hospitals, 2074 Abington Road, Cleveland, Ohio 44106.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS IN REPRODUCTIVE BIOLOGY. It is anticipated the postdoctoral fellowship will be available in an NIH-funded interdisciplinary program. Research areas include: biochemistry and cell biology of fertilization (S. Meisel, J. Hedrick, D. Katz, and R. Nuccitelli) and cell biology and morphology of implantation, placenta, and early development (A. Enders, A. Hendrickx, and B. King). Candidates must be U.S. citizens or permanent residents, and at time of appointment, must have doctoral degree with either no postdoctoral training or less than 1 year. Appointments can begin anytime between 1 September 1983 and 1 April 1984.

Applicants should send their curriculum vitae, summary of research interests, and three letters of recommendation to: **Dr. Stanley Meisel, Department of Human Anatomy, School of Medicine, University of California, Davis, Calif. 95616. The University of California is an Equal Opportunity/Affirmative Action Employer.**

UNIVERSITY OF TORONTO, Department of Botany. Applications are invited for a **POSTDOCTORAL FELLOWSHIP** in the genetic engineering of cyanobacteria. This position is available immediately. The successful applicant will be expected to study the molecular genetics of photosynthesis utilizing genetically engineered cyanobacteria. Experience in plant or algal physiology desirable. Send curriculum vitae and two letters of reference to: **Dr. N. A. Straus or Dr. J. P. Williams, Department of Botany, University of Toronto, Toronto, Ontario, Canada M5S 1A1. Deadline for receipt of applications is 31 July 1983.**

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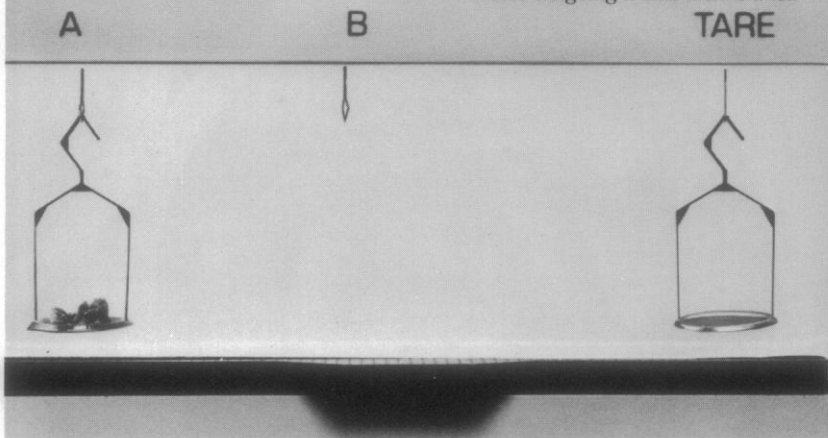
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RESEARCH CHEMIST

The Eastern Regional Research Center has an opening for a Research Chemist to conduct research on the isolation, identification and properties of calcium regulatory proteins from plant systems.

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**Personnel Office
USDA-ARS-ERRC
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The candidate must possess a PhD degree or equivalent in biochemistry with additional courses in immunology, and

with 2-3 years' post-doctoral experience in various aspects of biochemical research as evidenced by published work. Research in the area of prostaglandin leukotriene biosynthesis and/or biochemical aspects of inflammation is an additional asset.

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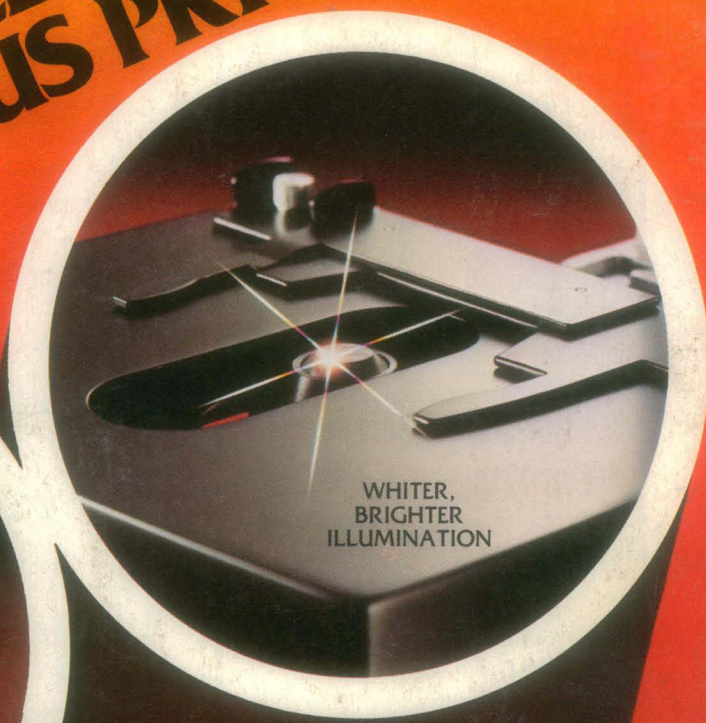


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