

rotation as a function of depth below the solar surface. This information is very important for models of the solar dynamo that generates the solar magnetic field and thereby solar activity.

Observations at the South Pole by scientists from Nice Observatory have recently confirmed two significant observations discussed in these proceedings. A group from the University of Birmingham reported discrete frequencies in the well-known 5-minute oscillations that probe the structure deep within the sun. Pulsations with a period of 2 hours 40 minutes that were observed in phase at the Crimean Astrophysical Observatory and the Stanford Solar Observatory were observed with the same phase at the South Pole.

A reader of these proceedings might start with the excellent introduction by D. O. Gough and then read the review of observational evidence for global oscillations of the sun by H. A. Hill and the theoretical remarks on solar oscillations by Gough. One is then prepared for the detailed discussions of oscillations in Delta Scuti and Beta Cephei type stars, the sun, and degenerate stars.

These proceedings are an excellent summary of research that may greatly increase our knowledge of solar and stellar structure, and their availability is an important advance toward this goal.

JOHN M. WILCOX

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Books Received

Advances in Biomedical Engineering. David O. Cooney, Ed. Dekker, New York, 1980. Two volumes. Part 1, xvi, 340 pp., illus. \$35. Part 2, xvi + pp. 341-690, illus. \$39.50. Biomedical Engineering and Instrumentation Series, vol. 6.

Advances in Computers. Vol. 19. Marshall C. Yovits, Ed. Academic Press, New York, 1980. xii, 352 pp., illus. \$36.50.

Advances in Substance Abuse. Behavioral and Biological Research. A Research Annual. Vol. 1. Nancy K. Mello, Ed. Jai Press, Greenwich, Conn., 1980. x, 376 pp., illus. \$37.50.

The Aetiopathogenesis of Osteoarthritis. George Nuki, Ed. Pitman, Tunbridge Wells, Kent, England, 1980 (U.S. distributor, University Park Press, Baltimore). x, 212 pp., illus. \$39.50.

Altruism, Socialization, and Society. J. Philippe Rushton. Prentice-Hall, Englewood Cliffs, N.J., 1980. xii, 244 pp., illus. \$16.95.

The American Establishment. Leonard Silk and Mark Silk. Basic Books, New York, 1980. xii, 352 pp., illus. \$13.95.

Basic Hemodynamics and Its Role in Disease Processes. Dali J. Patel and Ramesh N. Vaishnav. University Park Press, Baltimore, 1980. xx, 504 pp., illus. \$57.50.

Bioelectrochemistry. Proceedings of a seminar, Pasadena, Calif., July 1979. Hendrik Keyzer and Felix Guttman, Eds. Plenum, New York, 1980. x, 434 pp., illus. \$42.50.

Biological Effects of Alcohol. Proceedings of a symposium, Zurich, June 1978. Henri Begleiter, Ed. Plenum, New York, 1980. xiv, 832 pp., illus. \$75. Advances in Experimental Medicine and Biology, vol. 126.

Biology of Reinforcement. Facets of Brain-Stimulation Reward. Aryeh Routtenberg, Ed. Academic Press, New York, 1980. xiv, 174 pp., illus. \$16.

Cancer Incidence in Defined Populations. Papers from a conference. John Cairns, Joseph L. Lyon, and Mark Skolnick, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y., 1980. xii, 458 pp., illus. \$45. Banbury Report 4.

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Choice and Change. The Psychology of Adjustment, Growth, and Creativity. April O'Connell and Vincent F. O'Connell. Prentice-Hall, Englewood Cliffs, N.J., ed. 2, 1980. xvi, 544 pp., illus. Paper, \$12.95.

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Clinical Neuroepidemiology. Papers from a symposium, London. F. Clifford Rose, Ed. Pitman, Tunbridge Wells, Kent, England, 1980 (U.S. distributor, University Park Press, Baltimore). xiv, 426 pp., illus. \$39.50. Progress in Neurological Research Series.

Cultural Materialism. The Struggle for a Science of Culture. Marvin Harris. Vintage (Random House), New York, 1980. xiv, 384 pp. Paper, \$4.95. Reprint of the 1979 edition.

Design of Cancer Chemotherapy. Experimental and Clinical Approaches. E. Mihich and S. Eckhardt, Eds. Karger, Basel, 1980. x, 192 pp., illus. \$58. Antibiotics and Chemotherapy, vol. 28.

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Immunological Approaches to Embryonic Development and Differentiation. Part 2. Martin Friedlander, Ed. Academic Press, New York, 1980. xx, 382 pp., illus. \$39.50. Current Topics in Developmental Biology, vol. 14.

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The Mysteries of Modern Science. Brian M. Stableford. Littlefield, Adams, Totowa, N.J., 1980. vi, 270 pp. Paper, \$4.95. Reprint of the 1977 edition.

The Natural Philosophy of Time. G. J. Whitrow. Clarendon (Oxford University Press), New York, ed. 2, 1980. x, 400 pp. \$39.50.

(Continued on page 1346)

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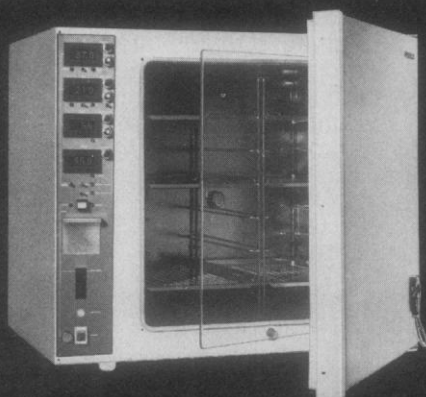


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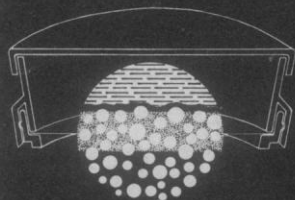
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Image Analyzer

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Literature

Microbiological Products lists kits and reagents for research and clinical applications. Laboratory Diagnostics. Circle 820.

Powder Tech Notes is a series of papers treating commonly encountered problems in powder characterization. Quantachrome. Circle 830.

Excitation Systems describes the XCITE line of controlled force modal excitation systems for dynamic and seismic applications. Zonic. Circle 831.

Instruments for Environmental and Scientific Measurements features pH meters, colorimeters, recorders, electrodes, and more. Chemtrix. Circle 833.

Spectrometers offers ultraviolet, visible, and infrared analyzing devices. Spex Industries. Circle 834.

Liquid Chromatography is devoted to chromatographs, columns, supplies, chemicals, samplers, detectors, and more. Varian Instrument Group. Circle 835.

Circulating Baths describes three series in six sizes of constant temperature appliances. Techne. Circle 837.

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BOOKS RECEIVED

(Continued from page 1342)

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The Renin-Angiotensin System. Proceedings of a conference, Columbia, Mo., Sept. 1978. J. Alan Johnson and Ralph R. Anderson, Eds. Plenum, New York, 1980. x, 308 pp., illus. \$37.50. *Advances in Experimental Medicine and Biology*, vol. 130.

Reproductive Physiology III. Roy O. Greep, Ed. University Park Press, Baltimore, 1980. xii, 366 pp., illus. \$34.50. *International Review of Physiology*, vol. 22.

Resource-Constrained Economies. The North American Dilemma. Papers from a meeting, Ottawa, Canada, July 1979. Soil Conservation Society of America, Ankeny, Iowa, 1980. xvi, 308 pp. Paper, \$8.50.

Sex Differences. Mental and Temperamental. John P. Seward and Georgene H. Seward. Lexington (Heath), Lexington, Mass., 1980. xiv, 216 pp. \$22.95.

Shaping the Future. Community-Based Residential Services and Facilities for Mentally Retarded People. Philip Roos, Brian M. McCann, and Max R. Addison, Eds. University Park Press, Baltimore, 1980. xiv, 170 pp., illus. Paper, \$12.95.

The Social and Psychological Contexts of Language. Robert N. St. Clair and Howard Giles, Eds. Erlbaum, Hillsdale, N.J., 1980. xii, 338 pp. \$24.95.

Social Exchange. Advances in Theory and Research. Kenneth J. Gergen, Martin S. Greenberg, and Richard H. Willis, Ed. Plenum, New York, 1980. xviii, 306 pp. \$24.50.

Social Problems. Joseph Julian. Prentice-Hall, Englewood Cliffs, N.J., ed. 3, 1980. xx, 572 pp., illus. \$13.50.

Software Configuration Management. An Investment in Product Integrity. Edward H. Bersoff, Vilas D. Henderson, and Stanley G. Siegel. Prentice-Hall, Englewood Cliffs, N.J., 1980. xiv, 386 pp., illus. \$24.95.

Software Manual for the Elementary Functions. William J. Cody, Jr., and William Waite. Prentice-Hall, Englewood Cliffs, N.J., 1980. x, 270 pp. \$16.95.

Soil Science Simplified. Milo I. Harpstead and Francis D. Hole. Iowa State University Press, Ames, 1980. viii, 122 pp., illus. Paper, \$7.75.

Solid Electrolytes and Their Applications. E. C. Subbarao, Ed. Plenum, New York, 1980. xvi, 298 pp., illus. \$35.

Stress Analysis of Polymers. J. G. Williams. Horwood, Chichester, England, and Halsted (Wiley), New York, ed. 2, 1980. 360 pp., illus. \$77.95. Ellis Horwood Series in Engineering Science.

Substance P. Vol. 2. Petr Skrabanek and David Powell. Eden Press, St. Albans, Vt., 1980 (distributor, Pergamon, New York). vi, 176 pp., illus. \$26.

The Sun. Our Future Energy Source. David K. McDaniels. Wiley, New York, 1980. xii, 272 pp., illus. \$18.95.

Symmetries in Science. Proceedings of a symposium, Carbondale, Ill., Feb. 1979. Bruno Gruber and Richard S. Millman, Eds. Plenum, New York, 1980. x, 496 pp., illus. \$49.50.

The Tanner Lectures on Human Values. Vol. 1, 1980. Sterling M. McMurrin, Ed. University of Utah Press, Salt Lake City, and Cambridge University Press, Cambridge, England, 1980. xii, 258 pp. \$15.

Theory and Design of Digital Computer Systems. Douglas Lewin. Halsted (Wiley), New York, ed. 2, 1980. viii, 472 pp., illus. Paper, \$24.95.

Through the '80s. Thinking Globally, Acting Locally. Frank Feather, Ed. World Future Society, Washington, D.C., 1980. viii, 434 pp. Paper, \$12.50.

Thyristor Networks for the Transfer of Energy between Superconducting Coils. Robert L. Kustom. University of Wisconsin Press, Madison, 1980. xx, 116 pp., illus. \$23.

Transfer RNA. Biological Aspects. Papers from a meeting, Cold Spring Harbor, N.Y., Aug. 1978. Dieter Söll, John N. Abelson, and Paul R. Schimmel, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y., 1980. xii, 578 pp., illus. \$60. Cold Spring Harbor Monograph Series, 9B.

Trees for Every Purpose. Joseph Hudak. Drawings by Artemas Partridge Richardson. McGraw-Hill, New York, 1980. viii, 230 pp. \$21.95.

Trends in Enzyme Histochemistry and Cytochemistry. Papers from a symposium, London, May 1979. Excerpta Medica, Amsterdam, 1980 (U.S. distributor, Elsevier North-Holland, New York). viii, 314 pp., illus. \$53.75. Ciba Foundation Symposium 73 (new series).

The Use/Nonuse/Misuse of Applied Social Research in the Courts. Papers from a conference, Washington, D.C., Oct. 1978. Michael J. Saks and Charles H. Baron, Eds. Published for the Council for Applied Social Research by Abt Books, Cambridge, Mass., 1980. x, 190 pp., illus. \$26.

Variational Methods in Electron-Atom Scattering Theory. Robert K. Nesbet. Plenum, New York, 1980. x, 228 pp., illus. \$32.50. *Physics of Atoms and Molecules*.

Vectors of Plant Pathogens. Kerry F. Harris and Karl Maramorosch, Eds. Academic Press, New York, 1980. xiv, 468 pp., illus. \$48.

What Are My Chances? Ben Eiseman. Saunders, Philadelphia, 1980 (distributor, Holt, Rinehart and Winston, New York). xii, 402 pp., illus. \$14.95.

What Can Be Automated. The Computer Science and Engineering Research Study (COSERS). Bruce W. Arden, Ed. MIT Press, Cambridge, Mass., 1980. xxiv, 934 pp., illus. \$29.95.

X-Ray Morphology of Occupational Locomotor Diseases. F. Horváth, Ed. University Park Press, Baltimore, 1980. 164 pp., illus. \$14.95.

La Xeromammografia. Xeromammography. G. Luzzatti, B. Salvadori, and E. Tavanì. Excerpta Medica, Amsterdam, 1979 (U.S. distributor, Elsevier North-Holland, New York). 238 pp., illus. \$146.25.

The Yaquis. A Cultural History. Edward H. Spicer. University of Arizona Press, Tucson, 1980. xiv, 394 pp., illus. Cloth, \$28.50; paper, \$14.50.

The Year 2000 and Mental Retardation. Stanley C. Plog and Miles B. Santamour, Eds. Plenum, New York, 1980. x, 234 pp., illus. \$19.95. *Current Topics in Mental Health*.

Personnel Placement

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Anatomist/Neuroanatomist/Neurobiologist. Ph.D., associate professor. Good bibliography and 15 years of teaching gross anatomy, neuroanatomy, and histology, and preceptorship Ph.D. candidates. Currently working on ultrastructure of cell-to-cell communication in developing neural and lymphoid systems. Seeks position in teaching and research. Box 63, SCIENCE. 3/20, 27; 4/3

Animal Research Assistant/Laboratory Manager. Ph.D. in psychology; M.A. in animal behavior/behavior genetics; B.A. in zoology. Two years of experience managing psychology department animal colonies. Several years of experience doing animal research. Publications (including first author in *Developmental Psychobiology*). Box 64, SCIENCE. 3/20, 27

Fish Geneticist with strong background in marine teleost biochemical, population, and quantitative genetics. Ph.D. 1978. Two and one-half years of postdoctoral experience and several publications. Seeks research and/or teaching position in competitive environment. Available 1 July 1981. Box 65, SCIENCE. X

Marine Zoologist/Toxinologist. Ph.D. Extensive experience in the total assessment of toxic substances of animal origin, including isolation, purification, identification, bioassay, and pharmacodynamics. Teaching, grants, publications, sales. Seeks position in university or industrial laboratory engaged in natural products/environmental assessment research. Box 55, SCIENCE. X

Molecular Biologist. Ph.D. summer 1981. Experience in TEM, SEM, light microscopy, cell and tissue culture, ESR, atomic absorption spectroscopy, UV-VIS spectroscopy, polarography, protein separation, gel electrophoresis, and standard biochemical techniques. College teaching experience. Looking for challenging research position in academic setting or industry. Box 66, SCIENCE. X

Pharmaceutical Chemistry. Ph.D. Research experience. Seeks academic or industrial position in United States, Canada, or European countries. 30 Resolute Circle, Apartment 106, Rochester, N.Y. 14621. X

POSITIONS WANTED

Radiation Biologist. Ph.D. 1970. Seeks position to work closely with oncologists and training of resident radiation oncologists. Box 56, SCIENCE. X

POSITIONS OPEN

University of Michigan Medical School, Department of Internal Medicine, Nuclear Medicine Division, has an **ACADEMIC SENIOR STAFF POSITION** at **assistant professor** level available. Certified or Board-eligible in nuclear medicine, and preferably in internal medicine. Radiology or pathology desired with a special interest in gastroenterology or neurology. Applicant should have an interest and a performance record in clinical or basic nuclear medicine research. Send curriculum vitae to: **William H. Beierwaltes, M.D., Physician-In-Charge, Division of Nuclear Medicine, Box 021, W5630, University Hospital, Ann Arbor, Michigan 48109.** A nondiscriminatory, Affirmative Action Employer. Code 88DO.

ADMINISTRATOR—Department of Microbiology, Case Western Reserve University. Duties include: managing departmental budget and equipment acquisition, overseeing maintenance of physical facilities, implementing biological safety guidelines, supervising nonacademic technical personnel, advising faculty on research grant proposals, and implementing/interpreting university and governmental policies. Will report to the chairman but will be expected to exercise considerable independence. An advanced degree (preferably Ph.D.) in biological science plus teaching, research, or administrative experience is required. Ability to communicate with faculty, staff, and administrative officers of the university. Send curriculum vitae and names of three references to: **Chairman, Administrator Search Committee, Department of Microbiology, Case Western Reserve University, Cleveland, Ohio 44106.** An Equal Opportunity/Affirmative Action Employer

ANATOMISTS. Two full-time faculty positions in anatomy will be available 1 July 1981 at the College of Osteopathic Medicine of the Pacific, Pomona, California. Teaching is of prime importance in both positions, one requiring a strong background in neuroanatomy, the other in embryology. Each will be expected to teach in one or more of the other subdivisions of anatomy. Research is also encouraged. Position and salary will be commensurate with education and experience. Deadline for application with curriculum vitae and three letters of reference is 1 May 1981. Write to: **Dr. G. H. Nelson, Assistant Dean of Basic Sciences, College of Osteopathic Medicine of the Pacific, 309 Pomona Mall East, Pomona, California 91766.** Affirmative Action/Equal Opportunity Employer.

University of Michigan Medical School, Unit for Laboratory Animal Medicine, is seeking applications for an **ASSISTANT OR ASSOCIATE PROFESSOR OF COMPARATIVE PATHOLOGY**. Candidates must have a D.V.M. ACVP certification or eligibility is required and advanced training (Ph.D.) or equivalent experience in research is highly desirable. Duties include the training of resident veterinarians in pathology of laboratory animals, participation in graduate and medical education, operation of a diagnostic resource laboratory, and participation in collaborative research. Development of an effective independent research program in experimental pathology is expected. The rank and salary are commensurate with training and experience. Deadline for applications is 15 May 1981 or until filled. Applicants should send curriculum vitae and names of three references to: **Bennett J. Cohen, Chairman Search Committee, Unit for Laboratory Animal Medicine, University of Michigan, Ann Arbor, Mich. 48109.** A nondiscriminatory, Affirmative Action Employer. Code 03DO.

University of Michigan Medical School, Department of Internal Medicine, has a position available for **INSTRUCTOR THROUGH PROFESSOR**. Applicant will be involved in patient care of respiratory disease patients and fellows. Must be proficient in bronchoscopy and other procedures practiced in pulmonary medicine. Must have M.D. degree and meet qualifications of ABIM, be Board-certified or -eligible in Subspecialty Boards in Pulmonary Medicine. Must have proven research potential. Send curriculum vitae to: **John G. Weg, M.D., Professor of Internal Medicine, Pulmonary Division, S11303 University Hospital, Ann Arbor, Michigan 48109.** A nondiscriminatory, Affirmative Action Employer. Code 140FO.

POSITIONS OPEN

ANATOMY DEPARTMENT DALHOUSIE UNIVERSITY

Position open: Associate or Assistant Professor

Applications are invited from persons with M.D. or Ph.D. degrees for the above position which will be available 1 July 1981. The department is seeking a person with experience in teaching medical gross anatomy, and with an established research program. An ability to also teach neuroanatomy or histology would be an advantage. Research areas in the department include neuroanatomy, cell biology, ophthalmic anatomy, and genetics. Salary and rank commensurate with qualifications and experience. Application, together with curriculum vitae and the names of three referees, should be addressed to: **Dr. D. G. Gwyn, Professor and Head, Department of Anatomy, Dalhousie University, Halifax, Nova Scotia, Canada B3H 4H7.**

ANATOMISTS

Two term positions at the assistant/associate professor level are available for 1 July 1981. Medical, dental, or Ph.D. degree required with teaching experience in either gross anatomy or oral histology, as well as other areas. Must have an active and independent research program. The University invites both women and men, and especially encourages Canadian citizens, permanent residents, and others eligible for employment in Canada at the time of application, to apply. Send curriculum vitae and arrange for three letters of reference to be sent to: **Dr. T. V. N. Persaud, Head, Department of Anatomy, University of Manitoba, Winnipeg, Manitoba, Canada R3E 0W3.**

AQUACULTURE SCIENCE—PROFESSOR. Provide scientific expertise and collaborative assistance for research and education program of aquatic biomass production with primary interest on marine biomass. Earned Ph.D. with demonstrated scientific accomplishments, leadership, and expertise to further development of a major research program in aquacultural sciences; particularly, marine biomass production. Deadline: 15 April 1981, 12-month, tenure-accruing. Send curriculum vitae, official academic transcripts, and three letters of recommendation to: **Arnett C. Mace, Jr., Director, School of Forest Resources and Conservation, University of Florida, Gainesville, Fla. 32611.** Telephone: 904-392-1791.

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ASSISTANT PROFESSOR

Applications are invited for the position of assistant professor in the Department of Physiology and Biophysics in Harvard Medical School. Responsibilities include research and teaching. Qualifications in research at the cellular and molecular level. Of particular interest are cell-cell interactions, control of biosynthetic processes, hormones, hormonal regulation of cell functions, and related subjects. Send curriculum vitae to: **Departmental Administrator, Department of Physiology and Biophysics, 25 Shattuck Street, Boston, Mass. 02115.**

ASSISTANT PROFESSOR OF ANATOMY at The University of New Mexico (UNM). Seeking individual with postdoctoral experience to join young/active group of teacher-researchers in tenure-track position. Teaching competence in gross and microscopic anatomy is necessary; individuals with capabilities in neuroanatomy in addition given special consideration. Areas of research open; however, our available technology most easily supports research in cell biology. Research program sufficiently mature to be competitive for extramural funding one determinant in selection. Curriculum vitae, bibliography, statement of future research/teaching interests, and three recommendations to: **Search Committee, Anatomy Department, UNM School of Medicine, Albuquerque, N.M. 87131.** Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR OF PHARMACOLOGY AND TOXICOLOGY. This faculty position available immediately. Primary consideration given candidates with expertise in xenobiotic metabolism. Those with backgrounds in immunopharmacology, receptor mechanisms, and cardiovascular pharmacology also should apply. Submit current curriculum vitae, statement of career goals, and have three letters of reference sent to: **Dr. William O. Berndt, Chairman, Department of Pharmacology and Toxicology, University of Mississippi Medical Center, 2500 North State Street, Jackson, Miss. 39216.** Equal Opportunity Employer, M/F.

POSITIONS OPEN

VISITING ASSISTANT PROFESSOR—MICROBIOLOGY. Ten-month position starting 17 August 1981. Position may become tenure track with graduate student and research obligations. Primary duties are teaching undergraduate courses in pathogenic microbiology and epidemiology and advising students. Ph.D. and strong background in pathogenic microbiology required. Send curriculum vitae and names of three references to: **M. J. Voll, Search Committee Chairman, University of Maryland, College Park, Md. 20742**, by 20 April. *Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF MINING. Applied Geophysics Program, to begin 1 July 1981. Applicants should have a doctorate degree, practical experience, and publications. Ability to supervise graduate students is essential. Salary commensurate with qualifications and experience. Send résumé and the names and addresses of three references by 1 April 1981 to: **Professor John T. Kuo, 828 S. W. Mudd Building, Henry Krump School of Mines, Columbia University, New York, N.Y. 10027.** *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT, ASSOCIATE OR FULL PROFESSOR, PLANT PATHOLOGY. The Department of Plant Pathology at the University of California, Riverside, has a full-time, tenured position open at any rank, commensurate with experience. The appointee will conduct applied and basic research on diseases of avocado and subtropical plants. A Ph.D. degree is required and an academic background in plant pathology, mycology, epidemiology, soil microbiology, or the ecology of soil-borne microorganisms would be desirable. Candidates should be prepared to work on *Phytophthora* spp. and the diseases they cause, but prior experience with *Phytophthora* is not required. Send résumé, three confidential letters of recommendation, and complete transcripts to: **Dr. John A. Menge, Department of Plant Pathology, University of California, Riverside, Calif. 92521.** Deadline for applications is 15 May 1981 or later if a suitable applicant has not been selected. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF ZOOLOGY MICROANATOMIST/DEVELOPMENTAL BIOLOGIST

A tenure-track position for a microanatomist/developmental biologist is open in the Department of Zoology, The Ohio State University, starting autumn quarter 1981. The successful candidate will be responsible for supervising a complete TEM laboratory (new Zeiss 109R TEM) and technician. Scanning EM's are available in other departments. Independent research will be expected as well as training of graduate students and undergraduate teaching in histology and animal development courses. There will also be occasional participation in introductory zoology and biology courses. Preference will be given to candidates with background in animal development. The salary range for this 9-month appointment is \$18,000 to \$21,000. Curriculum vitae and three letters of reference should be sent to: **Dr. Tony J. Peterle, Department of Zoology, The Ohio State University, 1735 Neil Avenue, Columbus, Ohio 43210.** Deadline for receipt of applications is 15 April 1981.

The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women and minority and handicapped persons, as well as others, are encouraged to apply.

BIOLOGY. Temporary 1-year appointment available 24 August 1981. Teaching human anatomy and physiology for nurses. M.S., A.B.D., or Ph.D. required; teaching experience in health-related areas of human anatomy and physiology and experience with large lecture classes desired. Rank and salary commensurate with qualifications and experience. Apply by 24 April 1981 to: **Dr. R. G. Johnson, Department of Biology, Southeast Missouri State University, Cape Girardeau, Mo. 63701.** *Equal Opportunity/Affirmative Action Employer, MIF.*

BIOLOGY. Assistant professor or instructor appointment for biology courses and biology laboratories. Preference given to candidates with microbiology, immunology, genetics, developmental biology, and/or histology competence. Requires Ph.D. or Ph.D. candidate in final stage of completion of degree. Apply by 3 April to: **A. Reid, Chairperson, Department of Biology, State College at Geneseo, Geneseo, New York 14454.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF ZOOLOGY THEORETICAL ECOLOGIST

A tenure-track position for an ecologist with a strong interest in exploring the mathematical theory of population, trophic level and community dynamics is open in the Department of Zoology, The Ohio State University, starting 1 October 1981. The successful candidate will be expected to develop a strong research program in these areas, and to interact with other ecologists in the department in developing joint approaches to ecological research.

The successful applicant will be expected to take an active part with other ecologists in the department in developing a new advanced ecology course for senior undergraduates and beginning graduate students, as well as to teach in the area of major specialty. The applicant will be expected also to participate in introductory zoology and biology courses.

The salary range for this 9-month appointment is \$18,000 to \$21,000. Curriculum vitae and three letters of reference should be sent to: **Dr. Tony J. Peterle, Department of Zoology, The Ohio State University, 1735 Neil Avenue, Columbus, Ohio 43210.** Deadline for receipt of applications is 15 April 1981.

The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women and minority and handicapped persons, as well as others, are encouraged to apply.

ASSOCIATE PROFESSOR DEPARTMENT OF BIOCHEMISTRY THE TEXAS COLLEGE OF OSTEOPATHIC MEDICINE

Qualified individuals are invited to apply for a faculty position available 1 September 1981. Applicants should have experience commensurate with the rank of the position. A vigorous, independent research program is necessary and teaching experience is desirable. Please send curriculum vitae, statement of research interests, and names of three references to:

**Ben G. Harris, Ph.D.
Department of Biochemistry
North Texas State University/
Texas College of Osteopathic Medicine
P.O. Box 13048
Denton, Texas 76203**

The Texas College of Osteopathic Medicine is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST. RESEARCH FACULTY position (research associate appointment) available after 1 July 1981 for a Ph.D. biochemist with at least 2 to 3 years of postdoctoral experience. This person will play a major role in an ongoing, broad research program in the area of vitamin A/retinoid metabolism, particularly dealing with retinoid binding proteins. Salary competitive and flexible depending on qualifications. Please apply with letter, curriculum vitae, bibliography, and three letters of reference to: **DeWitt S. Goodman, Division of Metabolism and Nutrition, Department of Medicine, Columbia University College of Physicians & Surgeons, New York, N.Y. 10032.**

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BIOMEDICAL COMPUTER SCIENTIST

A computer scientist with interest and background in medical applications of computers is sought for a position in the Department of Neurology at the University of Massachusetts Medical Center. A master's or Ph.D. in computer science or a related area, and some familiarity with MUMPS and FORTRAN are necessary. A sound background in mathematics and statistics is useful.

This position, within the Neurology Department, involves further development and implementation of an operational computer diagnosis system for application to clinical problems in the field of neurology, in collaboration with Dr. David Drachman, chairman, and other members of the Neurology Department. No specific medical knowledge is required. The existing system utilizes a micro-Nova computer to present medical questionnaires, store data, and arrive at diagnoses using Bayesian and other statistical methods. Appropriate candidates may receive a faculty appointment.

Please send résumé to: **Derrol Sawyer, Manager of Professional Placement, Employment Office, or telephone 617-856-2184** for an appointment.

**55 Lake Avenue North
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POSITIONS OPEN

BIOLOGY—Tenure-track, assistant professor to teach biological science courses for nursing students and nonscience liberal arts majors starting fall 1981. Background in microbiology and physiology required. Applicants must have a well-defined interest and experience in teaching nonscience majors. A Ph.D. and an active interest in research is also required. Send curriculum vitae, three letters of reference, and a summary of research interests and needs by 1 May to: **R. Nackoney, Chairman, Department of Natural Science, Loyola University, Chicago, Ill. 60626.** *Equal Opportunity/Affirmative Action Employer.*

BIOLOGY—Invertebrate zoologist with broad background in estuarine studies for 1-year appointment to begin August 1981. Possible extension beyond 1 year. Ph.D. preferred. Rank: instructor or assistant professor, depending on qualifications. Applicant must have commitment to teaching undergraduates in small liberal arts college. Send résumé and three letters of reference by 15 April 1981 to: **Dr. Rosemary Hein, Chair, Division of Natural Science and Mathematics, St. Mary's College of Maryland, St. Mary's City, Md. 20686.** *Equal Opportunity/Affirmative Action Employer.*

BOTANY. Assistant/associate professor, 9-month, tenure-track appointment beginning in August 1981. Direct an outdoor science program; teach general botany, vascular and nonvascular plant taxonomy, interpretive techniques, and other field techniques; also responsible for supervising students on various field trips. Ph.D. required; teaching experience preferred. Salary and rank dependent on credentials and experience. Send résumé, transcripts, and three letters of recommendation by 3 April 1981 to: **Dr. David M. Lynch, Assistant Dean of the College, Salem College, Salem, W.Va. 26426.** *Affirmative Action/Equal Opportunity Employer.*


CANCER RESEARCH ASSOCIATE—Position available for Ph.D. to purify and biochemically characterize a low-molecular-weight polypeptide growth factor isolated from human blood platelets using high-performance liquid chromatography, electrophoresis, and other chromatographic techniques, 3 years of experience, 40 hours a week. Salary: \$257 per week. Number 1286. Send résumé to: **Mary Nelson, Division of Employment Security, Hurley Building, Government Center, Boston, Mass. 02114.** *An Equal Opportunity/Affirmative Action Employer.*

CARDIOVASCULAR TRAINING POSITIONS. The Department of Pharmacology at the Medical University of South Carolina offers postdoctoral training opportunities in cardiovascular function, dysfunction and the action of cardiovascular drugs. Ongoing studies, carried out at the chemical, biochemical, biophysical, morphological, physiological, and clinical levels, focus on the role of vasoactive substances (for example, catecholamines, renin, kinins, and prostaglandins) in control of arterial pressure, the molecular and biophysical basis for cardiac and vascular diseases and cardiovascular drug action, metabolism of drugs, action of drug metabolites, and new drug development. Stipends are available and applications from individuals holding the Ph.D. and/or M.D. degree with backgrounds in the physical and/or biomedical sciences should be addressed to: **Postdoctoral Training Committee, Department of Pharmacology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S.C. 29403.** *Affirmative Action/Equal Opportunity Employer.*

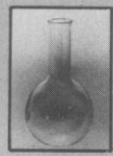
CHEMICAL OCEANOGRAPHER—Research associate, M.S., marine organic geochemistry and its relation to ocean productivity, Cooperative Institute of Marine and Atmospheric Sciences, University of Miami, and National Oceanic and Atmospheric Administration (NOAA). Contact: **Chairman, Search Committee, D. K. Atwood, NOAA/AOML, 15 Rick-enbacker Causeway, Miami, Florida 33149.**

CURATOR (MAMMALOGIST OR FRESHWATER ICHTHYOLOGIST) in Stovall Museum of Science and History beginning 1 July. Ph.D. and experience with systematic collections required. Includes academic appointment in Department of Zoology. Responsibilities include research, collection care, public interpretation, and teaching (one course per year). Deadline for completed applications 13 April. Send curriculum vitae, summary of experience and goals, reprints, and three letters of recommendation to: **Gary D. Schnell, Search Committee Chair, Stovall Museum, University of Oklahoma, Norman, Oklahoma 73019.** Telephone: 405-325-4034. *An Equal Opportunity/Affirmative Action Employer.*

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DUTIES: To take part in field and laboratory research relating to the development of geochemical exploration techniques.

QUALIFICATIONS: A Ph.D. degree or equivalent qualification supported by evidence of research capacity and productivity in the fields of geochemistry or economic geology. An ability to communicate with industry and some experience in mineral exploration would be desirable.

SALARY: Research scientist/senior research scientist: A\$17,972 to A\$26,109 per annum.

TENURE: Indefinite with superannuation.

APPLICATIONS: In writing, stating full personal and professional details, the names of at least two referees, and quoting reference Number A3860, should reach:

**The Assistant Chief
Division of Mineralogy
CSIRO
P.O. Box 136
NORTH RYDE, NSW 2113
AUSTRALIA**

by 17 April 1981.

20 MARCH 1981

RESEARCH SCIENTISTS/LABORATORY HEADS

Recent progress in molecular genetics is leading to revolutionary advances in a broad spectrum of fields ranging from medicine and agriculture to energy production.

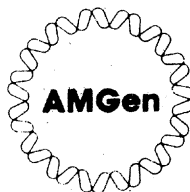
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Newbury Park, California 91320

Senior Sensory Physiologist

3M's Biosciences Research Laboratory in St. Paul, Mn. has an immediate opening for a PhD graduate with at least 2 years post doctoral experience in physiology. A thorough working knowledge of sensory information processing and computer applications are required.

Responsibilities involve applied technology research relating to future medical and surgical products.

Qualified candidates should send resume in confidence to: Dennis G. Nelson, Technical Placement Manager.

**Staffing & Employee Resources 3/M
3M Center
St. Paul, Minnesota 55144**

We Are An Equal Opportunity Employer M/F

3M

1349

POSITIONS OPEN

UNIVERSITY OF FLORIDA The Katharine Ordway Chair of Ecosystem Conservation

As part of its Eminent Scholars Program, the University of Florida announces the position of **CURATOR AND PROFESSOR** to occupy the Katharine Ordway Chair of Ecosystem Conservation shared jointly by the Florida State Museum and the School of Forest Resources and Conservation. The individual selected for this permanent position must be an experienced scholar of international reputation who will work with faculty and students to develop a multidisciplinary program of ecosystem research that complements the existing wildlife and habitat conservation programs of the two units. The endowment supporting the chair provides substantial operating and technical support, but the ability to attract additional outside support is important. Applicants should have a strong background in animal, plant, or community ecology, or closely related experience in field biology with research and teaching interests focusing on the preservation of unique ecosystems.

This position will be available as of 1 September 1981. Minimum salary: \$40,000, negotiable. Nominations, applications, and inquiries should be submitted by 30 April 1981 to:

Dr. Robert A. Bryan, Chairman
Ordway Chair Search Committee
235 Tigert Hall
University of Florida
Gainesville, Florida 32611

DIRECTOR, CYTOGENETICS LABORATORY, Memorial Hospital of Long Beach, California. Ph.D. human geneticist with at least 5 years of experience in a human genetics laboratory of which at least 1 year has been as supervisor of laboratory. Academic appointment at University of California, Irvine. Send curriculum vitae and references to: **E. Larson, M.D., 2801 Atlantic Avenue, Long Beach, Calif. 90801; telephone: 213-595-2431.**

MEDICAL DIRECTOR—Kidney Disease Institute, New York State Department of Health. The position of director responsible for supervision of mandated renal-related research and the Home Dialysis Assistance Program for the state of New York is available in the Kidney Disease Institute of the Division of Laboratories and Research. Candidates must have an M.D. degree, professional training or experience in nephrology or nephropathology and immunology, demonstrated administrative skills, and eligibility for New York State medical licensure. Responsibilities include planning and supervision of the Institute's research programs involving 15 investigators; professional planning and management of the Home Dialysis Assistance Program with a total of 22 nursing, clerical, accounting, and stenographic staff; and professional staff adviser on Department of Health policy, rules, and regulations regarding management of end-stage renal disease. Please contact: **Felix H. Hellpern, Administrative Director, Division of Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, N.Y. 12201. The New York State Department of Health is an Equal Opportunity/Affirmative Action Employer.**

DIVISION DIRECTOR, Atmospheric Analysis and Prediction Division (AAP), National Center for Atmospheric Research. The National Center for Atmospheric Research (NCAR) in Boulder, Colorado, seeks applications and nominations for director of its AAP division, which concentrates on theoretical and observational studies of the dynamics and thermodynamics of the lower atmosphere. AAP's four sections emphasize climate research, large-scale dynamics, physical oceanography, and mesoscale research. The division director is the scientific and administrative leader of the division, responsible for overall scientific productivity and excellence; short- and long-range planning; staffing, including affirmative action; and budget management. The position requires a Ph.D. or equivalent in physical science; demonstrated scientific productivity and breadth in areas of AAP interest equivalent to highest level NCAR scientific appointment; judgment about scientific quality, strategies, and individual competence; experience in management of activities and budgets; and ability as a scientific advocate. Please send a letter of candidacy and curriculum vitae to: **Dr. G. William Curtis, P.O. Box 3000, Boulder, Colorado 80307. Telephone: 303-494-5151, extension 550.** Applications should be received by 15 April 1981. The selected candidate should expect to assume position by 1 September 1981 or as soon thereafter as feasible. **NCAR is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

CORONARY PHYSIOLOGY RESEARCH ASSOCIATE

If you are interested in studying the control of coronary circulation, please send a résumé with references to:

Dr. Eric Feigl
Department of Physiology and Biophysics SJ-40
University of Washington Medical School
Seattle, Wash. 98195
An Affirmative Action Employer

DIRECTOR for the GORGAS MEMORIAL LABORATORY, PANAMA, a private, nonprofit organization. Will direct aggressive expanding medical research and training programs in Latin America. Emphasis on diseases of tropical regions; program areas include ecology, virology, parasitology, bacteriology, epidemiology, and immunology. Experience in management of research programs required. Applicant must have or be willing to develop working knowledge of Spanish and English. Starting salary range: \$48,000 to \$52,000, negotiable based on training and experience. Starting date: fall 1981. Please send letter of interest and current curriculum vitae to: **Jack W. Millar, M.D., President, Gorgas Memorial Institute, 2001 Wisconsin Avenue, NW, Washington, D.C. 20007. Equal Opportunity Employer.**

EUKARYOTIC MOLECULAR BIOLOGY

GRADUATE (M.Sc., Ph.D.) and POSTDOCTORAL positions are available for qualified individuals interested in cellular and viral DNA replication, the control of the mammalian cell cycle, and the molecular biology of cancer. Send transcript, résumé, and references to: **Dr. D. T. Denhardt, Cancer Research Laboratory, University of Western Ontario, London, Ontario, Canada N6A 5B7.**

FACULTY POSITIONS

Growing, well-established, accredited school of chiropractic seeks quality teachers/scholars for basic science positions opening August 1981. **HUMAN PHYSIOLOGY.** Preference will be given candidates with interests in digestion and biochemistry. Doctorate essential. Gross **ANATOMY**, preferably with interest in neuromusculoskeletal interrelationships. Doctorate or master's plus 30 required. Interested persons with those and **OTHER SPECIALTIES** relevant to preclinical sciences are invited to submit a letter discussing career goals in teaching and research. Enclose curriculum vitae, with names and addresses of three referees. **Basic Science Division, Northwestern College of Chiropractic, 1834 South Mississippi River Boulevard, St. Paul, Minn. 55116. Equal Opportunity Employer.**

FACULTY POSITION—PHYSIOLOGY

The West Virginia School of Osteopathic Medicine invites applications for a tenure-track faculty position in physiology. Duties include teaching in the areas of neurosensory and musculoskeletal physiology using an organ system approach to medical education and committee participation. Research facilities are available and research is encouraged.

Send curriculum vitae and names of three references to: **Kirk Herrick, D.O., Dean for Academic Affairs, West Virginia School of Osteopathic Medicine, 400 North Lee Street, Lewisburg, West Virginia 24901, no later than 15 May 1981.**

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITION/BIOCHEMISTRY. Available 1 July 1981 for candidates with postdoctoral research experience and interests in developing a research program applying recombinant DNA technology to health-related problems. Departmental instructional programs serve medical students, graduate students, and undergraduates. Send curriculum vitae, names of three references, and research plans to: **Chairman, Department of Biochemistry, College of Medicine, University of Kentucky, Lexington, Ky. 40536.**

An Affirmative Action/Equal Opportunity Employer

FACULTY POSITIONS IN MARINE SCIENCE AT HAMPTON INSTITUTE

Applications are invited for two tenure-track positions in (i) benthic ecology and (ii) marine geology at a developing Marine Science Center. Rank, salary open. Ph.D., ongoing research, teaching ability required. Beginning date: summer 1981. Direct, by 24 April 1981, curriculum vitae and names of three references to:

Dr. Craig Ruddell
Marine Science Center
Hampton Institute
Hampton, Virginia 23668

An Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

FACULTY POSITION IMMUNOLOGIST

Tenure-track assistant or associate professor to be appointed jointly in the College of Medicine's Department of Immunology and Medical Microbiology and the College of Veterinary Medicine's newly proposed Department of Comparative and Experimental Pathology. Requirements: an earned doctoral degree and postdoctoral experience with demonstrated expertise in either viral immunology, cellular immunology, or the immunobiology of cell surface antigens. Responsibilities: develop and manage a strong, basic research program and participate in the teaching of immunology to professional and graduate students. Salary and rank are dependent on experience and qualifications. Reply with curriculum vitae, bibliography, statement of career and research goals, and the names of three references to: **Dr. Parker A. Small, Department of Immunology and Medical Microbiology, Box J-266, JHMHC, University of Florida, Gainesville, Fla. 32610.** Application deadline: 1 May 1981.

FACULTY POSITION IMMUNOLOGIST

The Department of Preventive Medicine, College of Veterinary Medicine, University of Florida, has a position for an assistant or associate professor. The major responsibility of the individual selected will be to investigate immunological aspects of infectious diseases, with particular reference to the development and standardization of immunodiagnostic techniques. The applicant must have a D.V.M. or Ph.D. or equivalent degree and postdoctoral training and experience in immunology. He/she must also be willing to apply this knowledge to the solution of problems within the field of food-animal medicine. The person appointed will become a member of a multidisciplinary team of virologists, bacteriologists, parasitologists, and epidemiologists with established research programs in the area of livestock diseases of economic and international significance. A laboratory, full-time technologist, and start-up funds will be provided. Applications should include curriculum vitae, outlining citizenship, academic training, teaching experience, and present position. Also needed are a list of publications, a statement of professional goals, and the names of three persons who can provide letters of reference.

The closing date for applications is 1 June 1981. Salary will be commensurate with experience. For further information, contact:

Dr. Paul Gibbs, Chairman
Search and Screen Committee
Department of Preventive Medicine
College of Veterinary Medicine
Box J-136
University of Florida
Gainesville, Florida 32610
Telephone: 904-392-4756

INSTRUCTOR TO ASSISTANT PROFESSOR OF PATHOLOGY. Individual with expertise in vascular wall cell biology at the level of cell culture and growth control. Responsibilities to include independent and interactive research as well as coordination of cell culture activities and instruction at the graduate and postgraduate level. *An Affirmative Action Employer.* Applications to: **Stephen M. Schwartz, M.D., Ph.D., Department of Pathology SM-30, School of Medicine, University of Washington, Seattle, Wash. 98195.**

The Department of Botany and Bacteriology at Ohio Wesleyan University invites applications for a tenure-track position in **MICROBIOLOGY-VIROLOGY** at the assistant professor level beginning September 1981. Ph.D. required. Teaching duties will include courses in general microbiology, infections and immunity, virology, and an advanced course in a specialty area (preferably microbial or molecular genetics). The department works in close cooperation with the Departments of Zoology and Chemistry in an undergraduate college emphasizing the liberal arts and sciences.

The candidate chosen will be expected to demonstrate effective teaching of undergraduates and to maintain an active research program. Curriculum vitae, transcripts, and three letters of recommendation should be sent by 3 April 1981 to:

Dr. J. E. Sanger, Chairperson
Department of Botany and Bacteriology
Ohio Wesleyan University
Delaware, Ohio 43015

Ohio Wesleyan University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

FACULTY POSITION—GENETICS

The Department of Genetics, Washington University School of Medicine, invites applications from candidates who have a strong background in genetics and research interests in the genetics of mammalian cells in culture. The appointee will be expected to carry on an independent research program and to serve as faculty adviser of a cell culture production facility. Rank will be determined by the qualifications of the individual; preference will be given to those who have extensive experience in cell culture, either through their own independent research program or through advanced postdoctoral training. Send résumé and names of three reference to: **Dr. Donald C. Shreffler, Department of Genetics, Box 8031, Washington University School of Medicine, 660 South Euclid, St. Louis, Mo. 63110. An Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITIONS IN IMMUNOLOGY/MICROBIOLOGY

The newly expanded Department of Immunology/Microbiology at Rush Medical College invites applications for faculty positions. Interested individuals should have demonstrated research excellence in one or more of the areas of molecular genetics, microbial surface chemistry, molecular virology, viral immunobiology, or microbial pathogenesis and look forward to developing and maintaining a major research program. Ample opportunities to contribute to graduate and medical school teaching, including the direction of graduate students, are available. Salary and academic rank are dependent upon experience and qualifications. Please send résumé with description of research interests to:

**Henry Gewurz, M.D., Chairman
Department of Immunology/Microbiology
Rush Medical College
1753 West Congress Parkway
Chicago, Ill. 60612**

Rush is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS IN CHEMISTRY, BIOLOGY, MATHEMATICS, AND GEOLOGY

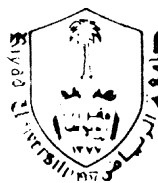
The Division of Natural Sciences has a permanent position available beginning fall 1981 in chemistry (analytical-physical) and in mathematics (applied-computer). In addition, sabbatical leave replacement appointments for the 1981-1982 academic year are available in geology (sedimentology-paleontology), chemistry (organic), and biology (genetics or physiology). All positions require a Ph.D. and are at the assistant professor level. Appointment at a higher level may be considered for qualified individuals. Send résumé, official transcripts, and three letters of recommendation to: **Dr. Al Siegel, Director, Natural Science Division, Southampton College, Southampton, New York 11968. An Affirmative Action/Equal Opportunity Employer.**

FACULTY POSITIONS IN BIOPHYSICS

The Department of Biophysics of the Johns Hopkins University School of Medicine will have vacant two faculty appointments late in 1981. The department is particularly interested in persons with research interests in protein crystallography or other quantitative studies of macromolecular or biological structure. However, outstanding candidates in related fields should not hesitate to apply. It is probable that appointment will be made at the rank of assistant professor, but higher rank appointments are possible under appropriate circumstances. Interested persons should send curriculum vitae, a summary of research interests, and the names of three persons who could supply letters of reference to: **Director, Department of Biophysics, The Johns Hopkins University School of Medicine, Baltimore, Md. 21205.** Additional information about the positions can be obtained from the department director. *The Johns Hopkins University does not discriminate on the basis of race, sex, religion, or national origin.*

INDUSTRIAL MICROBIOLOGIST Opportunity to Work in Sunny South

Vinings Chemical Company is seeking an individual with a proven track record to join our sales service team in Atlanta, Georgia. Position requires 2 to 5 years of experience in the paper and pulp industry, B.S. degree, strong communications skills, and a willingness to travel. We offer an excellent compensation and benefit package plus the opportunity for professional growth. For immediate consideration, send résumé with salary history in confidence to: **Personnel Department H, Number 750, 3355 Lenox Road, NE, Atlanta, Georgia 30326.**



KINGDOM OF SAUDI ARABIA UNIVERSITY OF RIYADH COLLEGE OF PHARMACY

The College of Pharmacy at the University of Riyadh in Riyadh, Saudi Arabia is seeking qualified staff for teaching and research for the 1981-82 academic year in the fields of PHARMACEUTICAL CHEMISTRY, PHARMACOLOGY, PHARMACEUTICS, PHARMACOGNOSY, CLINICAL PHARMACY and BIOCHEMISTRY.

QUALIFICATIONS: Candidates should hold a doctorate degree in their respective field and have reasonable experience. Clinical pharmacists should have experience in education and service since they will also be required to aid in the expansion and further development of clinical pharmacy services.

SALARIES AND ALLOWANCES: (Salaries and allowances in scale are in Saudi Riyals. One U.S. dollar is equivalent to 3.40 Riyals.)

PROFESSORS:	
Monthly Salary	SR6,595-8,995
Annual Increments	SR400
Annual Housing Allowance	SR20,000
Furniture Allowance (Given once only)	SR10,000
Monthly Transportation Allowance	SR600

ASSOCIATE PROFESSORS:	
Monthly Salary	SR5,835-7,585
Annual Increments	SR350
Annual Housing Allowance	SR17,000
Furniture Allowance (Given once only)	SR8,500
Monthly Transportation Allowance	SR600

ASSISTANT PROFESSORS:	
Monthly Salary	SR4,695-7,215
Annual Increments	SR315
Annual Housing Allowance	SR15,000
Furniture Allowance (Given once only)	SR7,500
Monthly Transportation Allowance	SR550

NOTE: Salaries for those applying in the field of Clinical Pharmacy are negotiable.

BENEFITS:

1. Professional allowance of 20% of salary will be paid to Pharmacists.
2. Freight allowance equivalent to 50% of the first month salary for the academic books and instruments of contractees on the teaching staff who are on a first time contract with the University.
3. Four air tickets for contractee and family. First class tickets provided to full professors and their families, all other staff provided with economy class tickets.
4. Educational costs of contractee's children from primary to completion of secondary level. Number not to exceed four children and expenses may not exceed SR10,000 for the first child, SR7,500 for the second child, SR5,000 for the third and SR2,500 for the fourth child.
5. Accommodation allowance and furniture allowance will not be paid in cases where free furnished accommodation is provided.
6. No Saudi Arabian taxes.
7. Free medical treatment in government hospitals.
8. Annual leave.

Letters of application and curriculum vitae with 2 recent passport size photographs, and photocopies of academic and experience credentials should be sent airmail to:

**The Dean, College of Pharmacy
University of Riyadh, Saudi Arabia**

A second copy of applicants' papers should be sent to:

**University of Riyadh Recruitment Office
c/o Saudi Arabian Educational Mission
2425 West Loop South
Houston, Texas USA 77027**

POSITIONS OPEN

UNIVERSITY OF CHICAGO THE DEPARTMENT OF BIOLOGY FACULTY POSITION IN DEVELOPMENTAL BIOLOGY

Applications are invited for tenure-track faculty appointment from individuals with demonstrated aptitude for independent research on mechanisms of development and differentiation in embryonic (animal) systems. Research interests may include, but are not limited to, cellular/biochemical/immunological/molecular approaches to regulation of gene expression, cell-surface biology, cell interactions, neural systems, early mammalian embryos. The position includes teaching undergraduate and/or graduate courses. Deadline for receipt of applications is 1 July 1981. Send curriculum vitae, bibliography, brief summary of research objectives, and reference names and addresses to: **Dr. A. A. Moscona, Cummings Life Science Center, University of Chicago, 920 East 58 Street, Chicago, Illinois 60637.** *Equal Opportunity/Affirmative Action Employer.*

California Institute of Technology DIVISION OF GEOLOGICAL AND PLANETARY SCIENCES

seeks to make a faculty appointment in
GEOCHEMISTRY/GEOPHYSICS

For the study of hydrothermal fluid systems in the earth's crust. We seek a geoscientist with strong research potential in hydrothermal systems and in fluid-rock interactions in the crust and with particular interest in developing new, integrated geological-geochemical-geophysical approaches to the understanding of those systems and their associated mineral deposits. Appointment is preferably at the junior (assistant professor) level, but more senior applicants will be considered. Please write to: **Barclay Kamb, Chairman, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, California 91125.** *An Equal Opportunity Employer.*

California Institute of Technology DIVISION OF GEOLOGICAL AND PLANETARY SCIENCES

desires to make an
assistant professor appointment in
PLANETARY SURFACE GEOLOGY

For the purpose of teaching and research in interpretation of planetary history from earth- and spacecraft-based observations of planetary surfaces. The division consists of about 25 faculty members specializing in geology, geochemistry, geophysics, and planetary science. The Jet Propulsion Laboratory, 7 miles north of the campus, has more than 100 scientists actively involved in space research. If interested, please write, with résumé, to: **Barclay Kamb, Chairman, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, California 91125.** *An Equal Opportunity Employer.*

A 1-year temporary position anticipated beginning September 1981. **LECTURER IN PHYSIOLOGY.** Earned doctorate in the field of physiology. Applicant must have competence in vertebrate systemic physiology with broad undergraduate training in biology. Teaching assignment to include an undergraduate course in systemic physiology with a laboratory, designed primarily for pre-nursing and biology majors; and a course in human biology, designed for general education students. Closing date: 15 April 1981, \$16,392 a year. Send curriculum vitae, three letters of reference, and complete transcripts to: **Dr. Juanita Barrena, Chair, Department of Biological Sciences, California State University, Sacramento, 6000 J Street, Sacramento, Calif. 95819.** *An Equal Opportunity/Affirmative Action/Handicapped/Title IX Employer.*

Department of Mathematical Sciences UNIVERSITY OF NEVADA LAS VEGAS, NEVADA 89154

Tenure-track position in **MATHEMATICS** available fall 1981. Salary and rank dependent upon qualifications and experience. Ph.D. in mathematics with research interest in algebra is required. Preference given to applicants with background in statistics. Must be willing and able to teach undergraduate courses in statistics and be willing to participate in the masters' programs. Send letter of application, transcripts, and names and addresses of four references to: **Paul S. Aizley, Search Committee.** Applications must be received by 10 April 1981. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

HORMONE AND MEMBRANE BIOCHEMISTRY

Postdoctoral positions (two or three) are available June 1981 to participate in biochemical/molecular biological research related to (i) isolation and cloning of mRNA for vitamin D-dependent calcium-binding protein; (ii) isolation of receptors for 1,25-dihydroxyvitamin D; and (iii) effects of vitamin D on intestinal membrane organization. Salary: \$15,000 to \$17,000 per year. Send curriculum vitae and two letters of recommendation to: **Dr. Anthony W. Norman, Chairman, Department of Biochemistry, University of California, Riverside, Calif. 92521.** *The University of California is an Affirmative Action/Equal Opportunity Employer.*

IMMUNOLOGIST—A full-time faculty position at the level of assistant professor. Candidates must have Ph.D. or M.D., or equivalent degree and demonstrate evidence of the ability to establish a strong independent research program in some aspect of molecular or cellular immunology. Duties will include teaching of graduate and medical students. This position offers an opportunity for a scientist to participate in the further development of active and ongoing research and training programs in immunology of this department and institution. Send curriculum vitae and references before 15 May 1981 to: **Dr. Gerald D. Shockman, Professor and Chairman, Department of Microbiology and Immunology, Temple University School of Medicine, 3400 North Broad Street, Philadelphia, Pa. 19140.** *An Equal Opportunity/Affirmative Action Employer.*

INFECTIOUS DISEASE/MICROBIOLOGY EPIDEMIOLOGIST. Applications are invited for a tenure-ladder position in the Division of Epidemiology, University of California, Los Angeles, School of Public Health, for an individual with a doctoral degree (Ph.D., M.D.-M.P.H., D.V.M.-M.P.H., and so forth) and appropriate experience in infectious diseases and medical and public health microbiology. A background in epidemiology is essential. This position will complement the training already available in parasitology, medical entomology, and arbovirology within the infectious and tropical diseases specialization of the epidemiology program. The development of graduate-level courses and a research program is expected. For a person with appropriate clinical qualifications, an affiliation with the appropriate medical school department is possible. Although the position is expected to be filled as an entry-level assistant professor, appointment at a higher rank may be considered for individuals with appropriate qualifications. *The University of California is an Equal Opportunity/Affirmative Action Employer; applications from minority and women candidates and other qualified persons are encouraged.* Candidates should submit curriculum vitae and three references to: **Professor Ralph Barr, Division of Epidemiology, School of Public Health, University of California, Los Angeles, Calif. 90024.** The application deadline is 1 April 1981 or until position is filled.

INSECT PHYSIOLOGIST. Full-time, 11-month, tenure-track appointment at assistant professor level beginning 1 September 1981. Research to emphasize physiological adaptations, such as those related to growth, dormancy, reproduction, migration, and host selection. Teach annual undergraduate course in insect physiology and conduct graduate seminars. Qualifications include a Ph.D. degree and evidence of outstanding potential for teaching and research in physiology of insects. Applications should include the following: (i) curriculum vitae, academic transcripts, and evidence of teaching skills and experience, (ii) bibliography and reprints of significant publications or manuscripts, and (iii) a statement outlining research areas and approaches proposed. Applicant also should furnish the names and addresses of at least three people who can provide recommendations. Submit all materials by 1 July 1981 to: **E. S. Sylvester, Chairman, Department of Entomology/Parasitology, 201 Wellman Hall, University of California, Berkeley, Calif. 94720.** *The University of California is an Affirmative Action Employer.*

DEPARTMENT OF MICROBIOLOGY UNIVERSITY OF GENEVA MEDICAL SCHOOL

Has an opening for an independent position of
MICROBIOLOGIST

with a good record of research in **molecular and medical bacteriology**; must be capable of teaching in **fluent French**. Send application with curriculum vitae, list of publications, and references to:

Department of Microbiology, 64, Avenue de la Roseraie, 1205 Geneva, Switzerland.

POSITIONS OPEN

University of Michigan Medical School, Department of Radiology, has a faculty position at the **INSTRUCTOR THROUGH PROFESSOR** level available. This physician will take part in the program of patient care, teaching, and research carried on in the Department of Radiology. He or she will supervise the activities of the resident staff and aid in the teaching of residents and medical students. Applicants should be Board-eligible or Board-certified radiologists. Previous training or work experience in an academic institution. Entering level commensurate with qualifications and experience. Reply to: **Box 60, SCIENCE.** Code 46HO. *A nondiscriminatory, Affirmative Action Employer.*

University of Michigan Medical School, Department of Physical Medicine and Rehabilitation, has a faculty position at the **INSTRUCTOR THROUGH ASSISTANT PROFESSOR** level available 1 July 1981. Board-certified physiatrist with 2 to 3 years of experience with the severely disabled. Reply to: **Box 61, SCIENCE.** Code 09FO. *A nondiscriminatory, Affirmative Action Employer.*

University of Michigan Medical School, Department of Physical Medicine and Rehabilitation, has a faculty position at the **INSTRUCTOR THROUGH ASSISTANT PROFESSOR** level available 1 July 1981. Board-certified physiatrist with 3 to 5 years of experience with the severely disabled. Reply to: **Box 62, SCIENCE.** Code 24IO. *A nondiscriminatory, Affirmative Action Employer.*

MOLECULAR BIOLOGIST AND A GENETICIST

The Department of Molecular Biology and Biochemistry invites applications for two positions in molecular biology and in genetics. One appointment will be tenured, the other tenure track, both to begin in 1981. The department desires outstanding candidates working on a molecular or genetic problem in eukaryotic or prokaryotic organisms. Major emphasis should be on the molecular or genetic aspects of gene expression. Applicants should be able to teach in molecular biology and/or genetics. Please submit curriculum vitae, bibliography, representative publications, a description of current research area, and three reference letters to: **Chair, Department of Molecular Biology and Biochemistry, University of California, Irvine, California 92717.** The deadline for applications is 15 April 1981. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

MOLECULAR IMMUNOLOGIST/MOLECULAR BIOLOGIST

Tenure-track appointment at the assistant professor level to begin in 1981. The Department of Molecular Biology and Biochemistry is seeking candidates for a position with research interests at the molecular level in eukaryotic cell surfaces. Major emphasis should be on molecular aspects of gene expression, cellular interaction, and/or immunogenetics. Applicants should be able to teach in molecular biology or biochemistry. Please submit curriculum vitae, bibliography, representative publications, a description of current research area, and three letters of reference to: **Chair, Department of Molecular Biology and Biochemistry, University of California, Irvine, California 92717.** The deadline for applications is 15 April 1981. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

University of Michigan Medical School, Department of Obstetrics and Gynecology, is undergoing a major rebuilding program and is seeking applicants who have an M.D. degree, postdoctoral training, and Board-qualification or -certification in **OBSTETRICS AND GYNECOLOGY**. At present, our primary emphasis is filling two positions at one of our affiliated hospitals, Wayne County General Hospital, to supervise primary health care of both inpatient and outpatient obstetric and gynecologic patients coupled with the teaching of residents and medical students. The ability to organize obstetric and gynecologic clinics and operative schedules plus interest in clinical investigation are highly desired qualities. Any academic level (instructor through professor) will be considered. Send curriculum vitae, brief summary of present and future research, and names and addresses of three references to: **Alan E. Beer, M.D., Professor and Chairman, Department of Obstetrics and Gynecology, Women's Hospital, University of Michigan Medical School, Ann Arbor, Michigan 48109.** *A nondiscriminatory, Affirmative Action Employer.* Codes 17FO and 30HO.

**KING FAISAL UNIVERSITY
COLLEGE OF MEDICINE
DAMMAN, SAUDI ARABIA
FACULTY POSITIONS OPEN
1981-1982**

King Faisal University College of Medicine, now in its seventh year, invites applications from qualified men and women for the 1981-1982 academic year in:

CHEMISTRY	PATHOLOGY
BIOLOGY	EPIDEMIOLOGY
PHYSICS	MICROBIOLOGY
BIOCHEMISTRY	PARASITOLOGY
ANATOMY	PHARMACOLOGY
PHYSIOLOGY	COMMUNITY MEDICINE

Doctorate or equivalent degree required. Language of instruction is English. Interviews to be held in London and Houston during April 1981.

SALARIES are highly competitive and negotiable; comparable to other Saudi universities.

BENEFITS include free furnished housing, educational allowances, air tickets to and from Saudia Arabia once each year for a family of four, 60-day paid vacation, liberal overweight allowance. No Saudi income tax.

Send curriculum vitae with current telephone number and the names and addresses of three references to:

Dr. Tawfiq Tamimi
Dean, College of Medicine
King Faisal University
c/o Saudi Arabian
Educational Mission
2425 West Loop South
Houston, Texas 77027

OR
c/o P.O. Box 2
Sudbury-on-Thames
Middlesex TW16 5JP
England

ASSOCIATE DIRECTOR RESPIRATORY PHARMACOLOGY / IMMUNOLOGY RESEARCH

The Research Division of Smith Kline & French Laboratories invites applications from outstanding scientists to lead a research group involved in the discovery of drugs for the treatment of pulmonary and allergic diseases.

The successful candidate will have:

- A minimum of 6 years post doctoral research in pharmacology and/or immunology
- A demonstrated record of excellence in research in either academia or industry
- A significant bibliography of research papers
- Proven administrative and communication skills
- Demonstrated supervisory abilities and capacity to motivate a multi-disciplinary team

The position offers significant opportunities for innovative basic research and to participate in the development of new research directions within the Research Division.

We offer excellent compensation and benefits and an attractive relocation policy. Send resume to: Mr. William G. Groves, **SMITHKLINE**

CORPORATION, P.O. Box 7929,
1590 Spring Garden Street,
Philadelphia, PA 19101.
We are an equal opportunity
employer, M/F/H/V.

SmithKline CORPORATION

Announcing a Research Conference on Genetic Engineering of Microorganisms

for Chemicals
to be held at the
University of Illinois
Urbana-Champaign, Illinois
26-29 May 1981

This Conference is designed to focus on strategies for the genetic engineering of bacteria, yeast, fungi and algae to enhance the microbial formation of chemicals. The emphases of this conference will be on techniques, model cloning systems, molecular genetics of microbial groups and the genetics and metabolic control of specific chemical-forming activities of microorganisms. An information base will be developed for further genetic modification of microbial systems that are potentially exploitable in the formation of chemicals.

*Support anticipated from the
NATIONAL SCIENCE FOUNDATION
with the cooperation of the
DEPARTMENT OF ENERGY*

Organizing Committee;

Ralph DeMoss, University of Illinois; I.C. Gunsalus, University of Illinois; Donald Helinski, University of California, San Diego; Alexander Hollaender, Chairman, Associated Universities; Raymond Valentine, University of California, Davis; Ralph Wolfe, University of Illinois.

Registration: \$150
For details, contact:
Conference Coordinator
Carol Holden
116 Illini Hall
University of Illinois
725 S. Wright St.
Champaign, IL. 61820
Telephone: (217) 333-2383

RESEARCH OPPORTUNITY IN PHYSIOLOGICAL/BIOCHEMICAL BASIS OF ALCOHOLISM

The Veterans Administration's Department of Medicine and Surgery announces the 3rd round of research awards in the field of alcoholism. Successful candidates will receive 3 years of support to conduct research in a VA Medical Center. This program will bring together new investigators and existing VA laboratories so that knowledge, facilities and skills can be shared.

Applications are sought from researchers willing to prepare a formal research proposal to investigate the physiological and/or biochemical basis of alcoholism. The applicant may be at any stage of his or her career (junior, intermediate or senior). While academic affiliations are encouraged, successful candidates must conduct their research projects in the VA. The opportunity to apply to this program is open to all scientists regardless of present employment, e.g. VA, University, commercial organization, etc.

Each application will be forwarded to a selected host VA Medical Center. Formal research proposals will be developed by the applicant in collaboration with a co-investigator from the host VA Medical Center; proposals will be reviewed for scientific merit by a multidisciplinary panel of expert researchers.

Funding will be appropriate to individual needs; the initial 3 year study may lead to a tenured career within the VA system.

Interested doctoral degreed scientists should request an application package BEFORE APRIL 30, 1981:

From:
Dr. Robert Allen (151F)
VA Central Office
810 Vermont Avenue, N.E.
Washington, D.C. 20420
Phone: 202-389-2441

Or:
Dr. Marcus A. Rothschild
VA Medical Center
First Avenue at E. 24th Street
New York, N.Y. 10010
Phone: 212-686-7500 ext. 663

POSITIONS OPEN

TENURE-TRACK POSITION DEPARTMENT OF MINERAL ECONOMICS THE PENNSYLVANIA STATE UNIVERSITY

Applicants are sought for a tenure-track position at the full, associate, or assistant professor level in the Department of Mineral Economics, The Pennsylvania State University. The position will be filled for the academic year 1982-1983. Applicants must have a Ph.D. in economics, geological sciences, material sciences, operations research engineering, geostatistics, management sciences, finance, or resource economics, with a demonstrated interest in applying their professional knowledge to the study of mineral resources and industries. Applicants at the higher levels must have demonstrated research potentials appropriate to the faculty rank. The Department of Mineral Economics offers B.S., M.S., and Ph.D. degrees in mineral economics and has an interdisciplinary faculty. The salaries at each level are competitive. Please send résumé and example of published papers no later than 30 October 1981 to: **Dr. William A. Vogely, Head, Department of Mineral Economics, 2205 Walker Building, The Pennsylvania State University, University Park, Pa. 16802.**

An Equal Opportunity/Affirmative Action Employer

MOLECULAR-CELL BIOLOGIST

Haverford College has available a 2-year, nontenure-track position at the assistant professor level beginning September 1981. Teaching duties will include participation in an introductory cell and molecular biology course and junior- and senior-level courses. The senior-level course involves directing research for a number of senior majors.

The department has a strong commitment to teaching and research in molecular and cell biology-biochemistry and has extensive equipment to support research needs of the new faculty person.

Send curriculum vitae and names of three references to:

Dr. Melvin Santer
Department of Biology
Haverford College
Haverford, Pa. 19041

We are an Equal Opportunity/Affirmative Action Employer.

IMPERIAL CANCER RESEARCH FUND (ICRF) Applications are invited for TWO ESTABLISHED POSITIONS

One appointment will be in the field of drug targeting. Specific interests could include types of drugs, nature of the carrier, drug-carrier attachment, mechanisms of uptake by cells, and release of drug. Extensive use may be made of the spectrum of cell-specific monoclonal antibodies which are currently available at ICRF. The successful candidate will be expected to coordinate our current activities in drug targeting and related research, as part of his or her own relevant research programme. (Reference DT.)

The field of the second appointment could be in any area of eukaryotic cell or molecular biology of relevance to cancer. Preference may be given to the areas of cell growth and transformation factors, the cytoskeleton, phosphorylation as a regulatory mechanism, or cell-cell recognition and interaction. (Reference EC.)

Candidates should have made major contributions to knowledge in one of the above or in related fields. The pensionable appointments are expected to be in the nonclinical senior grade (salary range: £11,165 to £13,980) or the special appointments grade (salary range: from £14,275) with entry depending on qualifications and experience, plus, in either case, London allowance of £967 a year.

Applications with full curriculum vitae and names and addresses of three referees should be sent to: **Secretary, ICRF, 44 Lincoln's Inn Fields, London WC2A 3PX, England**, by 30 April 1981, quoting reference as above. Further information may be obtained from the director of research, **Dr. W. F. Bodmer**.

POSTDOCTORATE IN PULMONARY RESEARCH

Supported by the NIH Pulmonary Training Program. Intended for comprehensive training in physiology, microscopy, and biochemistry. Stipend: \$13,000 to \$16,000, depending on experience. Candidate must have either a M.D. or Ph.D. degree. Available 1 July 1981. Those interested submit résumé to: **Yutaka Kikkawa, M.D., Chairman, Department of Pathology, New York Medical College, Basic Science Building, Valhalla, N.Y. 10595.**

POSITIONS OPEN

PHYSICAL OCEANOGRAPHER. The College of Marine Studies, University of Delaware, invites applications for a senior position with leadership responsibility in expanding and developing the physical oceanography program. This person must have an established record of the highest quality academic and research excellence and be committed to guiding program development toward these same goals. Preference will be given to an individual who can develop a well-rounded program with both field and theoretical components. Rank will be that of tenured professor with salary commensurate with experience. The position is available at the Marine Studies Complex of the university in Lewes, Delaware, where the College of Marine Studies has developed significant, new research facilities for support of field, laboratory, and modeling studies. Resources are available to allow the selected individual an opportunity to build the physical oceanography program. Send résumé by 15 May 1981 to: **Dean William S. Gaither, College of Marine Studies, University of Delaware, Lewes, Del. 19558.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL ASSOCIATE POSITION available after 1 June 1981 for person with Ph.D. in biochemistry to study the properties of cAMP-dependent protein kinase and myosin light-chain kinase in cardiovascular tissues. Experience in enzymology and protein-separating techniques desirable. Salary: \$13,000 to \$14,500 per annum. Send curriculum vitae and two references to: **Dr. R. C. Bhalla, Department of Anatomy and Cardiovascular Center, Box 12972, BSB, University of Iowa, Iowa City, Iowa 52242.** *The University of Iowa is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION. Research specialist to join group using genetics, biochemistry, microscopy, and recombinant DNA technology to study mitosis and regulation of microtubule assembly in *Aspergillus nidulans*. Stimulating environment. Considerable independence. Salary: \$17,000 to \$21,000, depending on qualifications. Send curriculum vitae and names of three references to: **Dr. N. Ronald Morris, Personnel Department, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—Rutgers Medical School, P.O. Box 101, Piscataway, New Jersey 08854.** *Equal Opportunity/Affirmative Action Employer, M/F.*

POSTDOCTORAL POSITION IN VISUAL PHYSIOLOGY. Applications are invited for a position, available in September 1982, which will involve electrophysiological and biochemical studies of adaptation in the vertebrate photoreceptor. Send letter of application, including a description of research interests and the names of three references to:

Dr. David R. Pepperberg
Department of Biological Sciences
Purdue University
West Lafayette, Indiana 47907
Equal Access/Opportunity Employer

POSTDOCTORAL POSITION available for studies on (i) regulation of microtubule assembly [*Biochemistry* 19, 6209 (1980)] and (ii) metabolic regulation of glycolytic enzymes [*Biochemistry* 19, 2030 (1980)]. Experience in cell culture, protein chemistry, or protein-protein interaction is desirable but not essential. Send curriculum vitae and two letters of reference to: **Dr. James C. Lee, Department of Biochemistry, St. Louis University, 1402 South Grand Boulevard, St. Louis, Mo. 63104.**

POSTDOCTORAL POSITION available immediately in single crystal x-ray diffraction of natural products, siderophores, cyclic peptides, and molecules of biological importance. Strong background in diffraction, computing, and structure determination required. Opportunity to become involved in the biochemistry of siderophores. Send curriculum vitae and names of references by 15 April 1981 to: **Dr. Dick van der Helm, Department of Chemistry, University of Oklahoma, Norman, Oklahoma 73019.** *The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION (2 to 3 years) to study hormonal regulation of mouse melanoma cells. Research training includes the production of monoclonal antibodies, immunological assays, isolation and characterization of hormonal receptors, somatic cell genetics, and tissue culture techniques. Send curriculum vitae, graduate transcripts, and three letters of recommendation to: **Dr. Ruth Halaban, c/o Aaron B. Lerner, M.D., Chairman, Department of Dermatology, Yale University School of Medicine, P.O. Box 3333, New Haven, Conn. 06510.**

POSITIONS OPEN

A **POSTDOCTORAL POSITION** will be available, starting 1 July 1981, to individuals interested in joining a dynamic research team involved in studying the regulation of phosphoglycerate metabolism in human erythrocytes. Prospective candidates should be well grounded in enzymology and/or protein chemistry. Research will involve enzyme modification, catalysis, and protein structural studies, including sequence analysis. Some whole cell work is anticipated. Interested persons should write to: **Dr. L. F. Hass, Department of Biological Chemistry, The Milton S. Hershey Medical Center of The Pennsylvania State University, Hershey, Pa. 17033.** The names of two or three references should be included. Salary is both competitive and negotiable. *An Equal Opportunity University.*

POSTDOCTORAL POSITIONS. Cellular and/or renal physiologists to study the mechanism and hormonal regulation of ionic transport across cells and epithelial tissues, using: (i) isolated perfused renal tubules or micropuncture with electron probe microanalysis (elements) and new ultramicrofluorescence analysis (organic compounds) in picoliter volume samples; (ii) electron probe microanalysis to measure the extra- and intracellular elemental composition in epithelial samples maintained frozen hydrated at -190°C; and (iii) electron probe and microfluorescence techniques on isolated epithelial cells grown in culture and on isolated cell organelles. Send curriculum vitae to: **Dr. Claude Lechene, Harvard Medical School, 45 Shattuck Street, Boston, Mass. 02115.**

POSTDOCTORAL POSITION IN IMMUNOGENETICS

One year, extendable to three. Current research focuses on MHC of domestic farm animals (horse and cow) using alloantibody serology, lymphocyte cultures, and monoclonal antibodies. Experience in population genetics or glycoprotein biochemistry desirable. Position suitable for qualified veterinarian interested in pursuing Ph.D. Available immediately. Salary: \$13,000 to \$15,000 to start. *Cornell is an Equal Opportunity Employer.* Contact: **Dr. Douglas F. Antczak, James A. Baker Institute for Animal Health, New York State College of Veterinary Medicine, Ithaca, N.Y. 14853.**

Postdoctoral Position—Immediate opening for a Ph.D. in chemistry or in biochemistry for studies on mechanisms and energetics of enzymatic catalysis. Approaches may include cryoenzymology, isotope exchange, transient-state kinetics, and some novel approaches now being developed. This position can lead to a reasonably permanent position and appointment as an adjunct assistant professor in the Department of Biochemistry at the University of Kansas School of Medicine. Please send curriculum vitae to: **Dr. Harvey F. Fisher, VA Medical Center, 4801 Linwood Boulevard, Kansas City, Mo. 64128.**

POSTDOCTORAL POSITIONS—Available immediately for studies into the mechanism of electron transport and oxygen activation by both membrane-bound mammalian and soluble bacterial cytochrome P-450 systems. Experience in the areas of physical biochemistry and drug metabolism are desirable but not essential. Salary will be commensurate with the level of training and experience of the successful applicants but will be in the range of \$14,000 to \$17,000 per year. The source of support funds will be either an NIH research grant or a Robert A. Welch Foundation Postdoctoral Fellowship, depending upon the area of research interest of the successful applicant. Applicants should send their curriculum vitae and names of three references to: **Dr. Julian A. Peterson, Department of Biochemistry, The University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, Texas 75235.** *An Affirmative Action/Equal Opportunity Employer.*

PROJECT ASSOCIATE. The Experimental High Energy Physics Group invites applications for a full-time (40 hours per week) project associate position. The person filling the position will collaborate with members of the experimental high energy physics group on the study of hadronic structure using hadron jets at Fermilab, Batavia, Illinois. The person will be responsible for designing, constructing, operating, and maintaining particle-detection apparatus, supervising installation, and performing data analyses. Applicants must hold a Ph.D. in experimental high energy physics. Salary competitive. Contact: **A. Erwin, Department of Physics, University of Wisconsin, Madison, Wis. 53706.**

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

**Chairperson
Department of Pathology
College of Medicine
University of South Florida**

The newly formed, scholarly, forward looking administration of this College of Medicine is reopening the search for Chairperson of Pathology. The candidate must have a commitment to academic excellence including a distinguished research background, development of a strong clinical pathology program and teaching expertise. Administrative experience must also be demonstrated.

The candidate should possess an M.D. degree with appropriate board certification.

Salary is competitive and negotiable. The position is available July 1, 1981. The application deadline is April 30, 1981.

Nominations or applications including a curriculum vitae and a list of at least three references should be sent to:

**Dr. Carleton Baker
Associate Dean for Research
and Graduate Affairs
College of Medicine, Box 40
University of South Florida
12901 N. 30th Street
Tampa, Florida 33612**

The University of South Florida is an affirmative action/equal opportunity employer.



CALL FOR PAPERS

**The Conference
for Research Methods
and Instrumentation***

**November 3, 4 and 5, 1981,
New York Hilton, NYC**

This first annual conference will take a multidisciplinary approach to recent advances in research methods, techniques, instrumentation, and applications in the life sciences. The symposium format will include speaker presentations, panel discussions, workshops, round-table discussions, contributed papers, and poster sessions. Areas in Biochemistry, Cell Biology, Genetics, Immunology, Pharmacology, and Microbiology will be covered, with specific topics scheduled in:

- | | |
|--------------------------------|-------------------------------|
| • Chromatography | • Instrumentation |
| • Electrophoresis | • Procedures/Reagents |
| • Qualitative Analysis | • Laboratory Animals |
| • Quantitative Analysis | • Grantsmanship |
| • Lab Data Handling | • Funding Alternatives |

Proceedings will be published. Please submit camera-ready abstracts of 250 words or less, in triplicate, no later than May 1, 1981 to: S. Chadwick, Program Coordinator, 28 Berdan Street, Rochelle Park, N.J. 07662.

For registration information contact: David Karcher, Conference Management Corporation, 500 Summer Street, Stamford, CT 06901, (203) 356-1900.

*Sponsored by BIOMEDICAL PRODUCTS magazine.

Research Scientists

Connaught Laboratories Limited is one of the world's largest producers of biological products. The creation of the Connaught Research Institute in July 1980 focused the activities of Connaught Laboratories on the innovative development of new products. In biotechnology our aim is to establish, in Canada, a team of scientists capable of exploiting the technology emerging from recombinant DNA work and hybridoma techniques to contribute to the development of biological products.

Accordingly, we currently have opportunities for Project Leaders, Research Scientists and Post-Doctoral Fellows to join our active and growing teams in the biotechnology field. These persons

will interact with other research scientists in the health care field, who are working to obtain materials of biological and medical significance.

Candidates should have a successful research record in the field of molecular biology, with a record of productivity. Specific experience in one of the following areas is desirable — Immunology, Recombinant DNA or hybridoma methodology.

Curriculum vitae and reprints should be sent, in confidence, to: **Mrs. L. Bell, Director of Personnel, Connaught Laboratories Limited, 1755 Steeles Avenue West, Willowdale, Ontario, Canada M2N 5T8.**

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POSITIONS OPEN

POSTDOCTORAL/RESEARCH ASSOCIATE positions (three), membrane biochemistry/tumor immunology, to (i) isolate surface antigens of human keratinocytes involved in autoimmune diseases of the skin and in cell-cell adhesion, (ii) develop monoclonal antibodies to melanoma-associated antigens, and (iii) study the turnover of surface macromolecules and tumor antigens on human melanoma cells. Send curriculum vitae to: **Dr. Jean-Claude Bystryn, Department of Dermatology, New York University School of Medicine, 560 First Avenue, New York, N.Y. 10016. Telephone: 212-340-5243. An Equal Opportunity/Affirmative Action Employer, M/F.**

PROFESSOR OF OCEANOGRAPHY

The Scripps Institution of Oceanography invites applications for an academic position in oceanography. The successful candidate will already have been recognized as a leading researcher in oceanography with demonstrated scholarship and experience in both field and theoretical work and proven ability to interact with both students and colleagues. Rank and salary depend upon qualifications; appointment as associate or full professor is envisioned. Send curriculum vitae, bibliography, statement of research and teaching interests and experience, and the names of three references to: **Chairman, Graduate Department, Mail Code A-008, Scripps Institution of Oceanography, La Jolla, Calif. 92093. Applications close 15 May 1981. The Scripps Institution is part of the University of California, an Equal Opportunity/Affirmative Action Employer.**

POLYTECHNIC INSTITUTE OF NEW YORK SEEKS PROVOST

Polytechnic Institute of New York is a coeducational, independent, technological university. It was created in 1973 through a merger of the School of Engineering and Science of New York University with the Polytechnic Institute of Brooklyn. It has campuses in New York City, Long Island, and Westchester. It offers programs at the bachelor's, master's, and doctorate level.

The provost is the chief academic officer of the Institute and reports directly to the president. The preferred candidate should be a strong academic leader and administrator.

Nominations and applications should be sent to:

**Presidential Services Division
Academy for Educational Development
680 Fifth Avenue
New York, New York 10019**

An Affirmative Action/Equal Opportunity Employer

A **RADIATION BIOPHYSICS** position at the assistant professor level for one academic year, with the possibility of one additional term, is anticipated for teaching and research in radiation biophysics and related programs in the biological sciences. Expertise required for teaching courses in instrumentation for radiation detection and tracer methodology and radiation protection (as well as others in the applicant's field of training). Evidence of ability to perform independent research in radiation biophysics is required. Collaborative research opportunities are available within the division. A Ph.D. is required and postdoctoral experience is desired. Starting date is 15 August 1981. Minimum salary: \$16,500 per 9 months. More details will be sent upon request. Send applications, statement of research interests, and three supporting letters by 10 April 1981 to: **Chairman, Search Committee, Radiation Biophysics, University of Kansas, 140 NRC, West 15 Street, Lawrence, Kansas 66045. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSISTANT in neuroanatomy with experience in light- and electron-microscopic neuroanatomical techniques. Emphasis on the tracing of connections in the central nervous system. Salary commensurate with experience. Send curriculum vitae to: **Dr. Lennart Heimer, Department of Neurology, Box 394, University of Virginia Medical Center, Charlottesville, Virginia 22908. Affirmative Action/Equal Opportunity Employer.**

A **RESEARCH ASSOCIATE** position is available at a large midwestern university for a Ph.D. with an interest in pattern formation in insects, experience in microsurgery, and ability to make sophisticated electrical measurement. Starting salary: \$15,000. Send curriculum vitae and names of two references to: **Indiana State Employment Security Division, 2301 Concord Road, Lafayette, Ind. 47905.**

POSITIONS OPEN

RESEARCH ASSOCIATE

BIOCHEMICAL ENDOCRINOLOGIST (Ph.D.) with training and experience in steroid hormone mechanisms to aid in investigation of cholecalciferol (vitamin D)-induction of a specific intestinal calcium-binding protein. Knowledge of tissue culture and immunoassay techniques helpful. Salary negotiable. Starting date: April 1981. Send résumé and names of three references to: **Dr. R. A. Corradino, Department of Physiology, 720 Veterinary, Research Tower, New York State College of Veterinary Medicine, Cornell University, Ithaca, N.Y. 14853. An Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE/POSTDOCTORAL FELLOW. Research in cardiopulmonary physiology of horses and ruminants. Part of a multidisciplinary group investigating respiratory diseases of veterinary and comparative importance. Minimum of 2 years; possibility of long-term position, with increased responsibilities. Send résumé to: **Dr. Roger G. Breeze, Department of Veterinary Microbiology and Pathology, College of Veterinary Medicine, Washington State University, Pullman, Wash. 99164. An Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE. Appointee will be responsible for research in two areas: (i) characterization of ts mutants of yeasts and (ii) heterotrophic nitrification by intestinal microorganisms. Candidates should possess a strong background in microbiology and biochemistry, have experience in working with membrane-bound enzymes, and have demonstrated research ability. A Ph.D. degree in microbiology is required. Salary will be \$15,000 to \$17,000 per year. Send curriculum vitae and letters of reference to: **Wallace Healey, Cambridge Job Center, 806 Massachusetts Avenue, Cambridge, Mass. 02139. Refer to case Number 1306. An Equal Opportunity Employer.**

RESEARCH ASSOCIATE

CETUS CORPORATION, a growing leader in biotechnology, is seeking an M.S. biochemist(s) for protein-sequencing projects. Candidates must have two or more years' experience in amino acid analyzer, sequencer, and HPLC. Background in protein chemistry and modern analytical techniques is required. Training and expertise in structural analyses of proteins preferred. Send resume, college transcripts, and three letters of recommendation to:

Cetus

Box R128, 600 Bancroft Way
Berkeley, California 94710
An equal opportunity employer

RESEARCH POSITION, CARDIAC SURGICAL RESEARCH LABORATORY, RESEARCH ASSOCIATE OR ASSISTANT PROFESSOR, DEPARTMENT OF SURGERY, UNIVERSITY OF CONNECTICUT HEALTH CENTER

Applicant must have M.S. or Ph.D. with biochemical and/or bioengineering capability with background in cardiac pharmacology or physiology. Demonstration of productivity with references are essential. Primary effort of the laboratory is myocardial preservation during open-heart surgery. Candidates are invited to submit up-to-date curriculum vitae and a bibliography to: **Dr. Richard M. Engelman, University of Connecticut Health Center, Route Number 4, Farmington, Conn. 06032. An Equal Opportunity/Affirmative Action Employer.**

VISUAL SCIENTIST. The Center for Visual Science and the Department of Psychology of the University of Rochester invite visual scientists at all levels of experience to apply for a tenured or tenure-track position beginning in September 1981 or January 1982. Preference will be given to those with a strong background in neurophysiology and to those with an active and established research program of recognized excellence. Please send curriculum vitae, an outline of research and teaching interests, and the names and addresses of three references to: **W. Makous, Director, Center for Visual Science, University of Rochester, Rochester, N.Y. 14627. An Equal Opportunity Employer, M/F.**

POSITIONS OPEN

RESEARCH ASSOCIATE—To design and synthesize novel anthracycline derivatives as candidate anticancer agents. Laboratory studies involve synthetic manipulation of unstable materials; milligram-scale reactions; instrumental analysis; structural determination; homogeneity and purity assays; formulation, solubility, and stability tests; development of structure-activity relationships; radiolabeled synthesis; and metabolite isolation and characterization. Ph.D. in chemistry, at least 2 years of experience, 40 hours a week; \$15,500 per year. Number 1287. Send curriculum vitae, bibliography, and names of three references to: **Mary Nelson, Division of Employment Security, Hurley Building, Government Center, Boston, Mass. 02114. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE—Structure and conformation of carbohydrates in glycoproteins. Research will employ instrumentation such as high-field superconducting NMR (carbon and hydrogen), vacuum UV circular dichroism, gas chromatography, mass spectrometry, and HPLC. Salary range: \$13,000 to \$16,000, depending on qualifications and experience. Send curriculum vitae and three letters of recommendation to: **Dr. C. Allen Bush, Department of Chemistry, Illinois Institute of Technology, Chicago, Ill. 60616. An Equal Opportunity/Affirmative Action Employer.**

SEDIMENTARY GEOLOGIST/ MICROPALAEONTOLOGIST WASHINGTON UNIVERSITY

The Department of Earth and Planetary Sciences, Washington University, has available a tenure-track, assistant professorship position beginning in the 1981-1982 academic year for a geoscientist with research interests in diagenesis of sediments or in micropaleontology.

The successful candidate must have the following attributes: demonstrated creativity and promise of excellence in research and teaching; intent to develop a vigorous graduate research program; and desire to teach courses in field of interest and related fields of geoscience at undergraduate and graduate levels. *Washington University is an Equal Opportunity/Affirmative Action Employer.* Send résumé, statement of future research interests, and names of at least three references to: **Larry Haskin, Chairman, Department of Earth and Planetary Sciences, Washington University, St. Louis, Missouri 63130. Applications received through 1 May 1981.**

SEISMOLOGIST—UNIVERSITY OF UTAH

The University of Utah is expanding its geophysics program in the Department of Geology and Geophysics by adding a tenure-track faculty member in seismology at the assistant to associate professor level. Applicants with backgrounds and specialties in seismic imaging and theoretical seismology will be given preference. The closing date for applications is 1 May 1981 and the appointment date is September 1981. However, the search may be extended if a suitable candidate is not selected, in which case applicants for a 1-year visiting position for the academic year 1981-1982 will also be considered. A Ph.D. is required for this position. Applicants should submit curriculum vitae, transcripts, a letter describing research and teaching goals, and names of five persons for reference. Qualified persons should send their applications to: **William P. Nash, Chairman, Department of Geology and Geophysics, University of Utah, Salt Lake City, Utah 84112. University of Utah is an Equal Opportunity/Affirmative Action Employer.**

TECHNICAL DIRECTOR

Consumers Union (CU), a nonprofit corporation, publisher of *Consumer Reports* magazine, is inviting applications for the position of technical director. The technical director is responsible for the management of CU's 77-member Technical Department and the technical quality of our research and reporting. We require a person with experience in product testing, a well-rounded background in technical matters, and good management and communications skills. The technical director works closely with the editor of *Consumer Reports* and reports to the executive director. Applicants should forward curriculum vitae and references to: **Consumers Union, Box DF, 256 Washington Street, Mount Vernon, N.Y. 10550. Consumers Union is an Equal Opportunity/Affirmative Action Employer.**

Section Manager to direct ECOLOGY & ENVIRONMENTAL ASSESSMENT SECTION Columbus, Ohio Location

Battelle, one of the foremost R&D organizations in the world, has an immediate management position for a recognized leader. Requirements:

- Extensive experience in basic and applied ecological research and management of multidisciplinary teams.
- In depth understanding of, and experience with, the development and conduct of contract research in environmental characterization, experimental ecology and toxic substances/environmental evaluation are essential.

You will supervise major research contracts and delegate responsibility for task and project completion to the present staff of approximately 20 research scientists and will coordinate multidisciplinary research with other Battelle departments.

We offer excellent benefits and salary commensurate with background and experience. Send C.V. in confidence to: **Dick Shaw, Senior Personnel Advisor**
Box 74, SCIENCE



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ASSOCIATE LABORATORY DIRECTOR for PHYSICAL RESEARCH

This position has programmatic and administrative responsibility for the Applied Mathematics Division, Chemistry Division, Materials Science Division, Physics Division, Solid State Science Division, High Energy Physics Division, Accelerator Research Facilities Division, and the Intense Pulsed Neutron Source Program. Please respond to:

Dr. Walter Massey, Director
Box # OTD-0181-55
Argonne National Laboratory
9700 South Cass Avenue
Argonne, IL 60439



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MOLECULAR GENETICIST

Fermentation Development 21st Century challenge in the most exciting recombinant DNA field

Bristol-Myers Industrial Division has a rare opportunity for a qualified industrial research professional to apply molecular genetics and recombinant DNA technology with a highly skilled group of scientists, involved in applications of genetics and biochemistry to various economically-important prokaryotic and eukaryotic fermentation microorganisms.

Successful candidate will do independent research, applying R-DNA Technology to new and existing biological systems. Position requires PhD, postdoctoral training in molecular genetics and substantial experience with recombinant DNA technology. Ability to interact effectively with a team of highly motivated individuals in a dynamic, productive industrial research environment essential.

This is an immediate opening, offering a competitive starting salary, fully commensurate with experience and qualifications, plus a full range of corporate benefits. For prompt, confidential consideration, forward your resume, including salary requirement to: **MANAGER OF EMPLOYMENT**



**BRISTOL-MYERS COMPANY
INDUSTRIAL DIVISION**

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SR. RESEARCH MICROBIOLOGIST

Merck Sharp & Dohme Research Laboratories, a recognized leader in the development of pharmaceutical and biological products, is currently seeking a microbiologist in its animal growth permittant program. The individual will investigate modes of action of known and new growth permittants at the cellular level and in domesticated stock; and will test promising new leads in target animals.

The successful candidate should have a PhD or equivalent with several years post doctoral research and experience in handling bacterial indigenous to the gastrointestinal tract, familiarity with current anaerobic techniques and a sound knowledge of animal nutrition. Research experience with poultry and swine is desirable.

Salary, benefits and growth potential are excellent. If interested, please send resume with salary requirements to Ms. S. R. Jenkins,



MERCK & CO., INC.

P.O. Box 2000, Rahway, New Jersey 07065
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POSITIONS OPEN

RESEARCH POSITION, permanent, at university hospital. Immunochemist or immunologist with biochemical background. Doctorate required. Work on immunological aspects of human cancer. Experience in radioisotope work, antibody fractionation, labeling, and immunoassays necessary. Excellent salary and benefits. Send curriculum vitae and bibliography to: **Gerry Parker, Immunochemistry Research, Evanston Hospital, 2650 Ridge Avenue, Evanston, Ill. 60201.**

CALL FOR PAPERS

CALL FOR PAPERS: Progress in Wetlands Utilization and Management, a symposium to be held in Orlando, Fla., 10 to 12 June 1981. Papers should focus on either results or design of wetlands research. Small stipend for presenters. Titles/abstracts due by 17 April 1981. For details and deadlines, contact: **Kissimmee River Coordinating Council, 2600 Blair Stone Road, Tallahassee, Fla. 32301 or telephone: 904-488-9830.**

WORKSHOPS

1981 GROUNDWATER MODELING WORKSHOPS, Indianapolis, Indiana. I: Introduction to Modeling Groundwater Flow and Transport, 27 to 29 May. II: Mathematical Foundations and Computer Implementation of Groundwater Modeling, 1 to 5 June. III: Analytical Groundwater Modeling, 18 to 22 May. IV: Adaptations of Prickett/Lonnquist Model Including Mass Transport, 8 to 12 June. Parts I and II taught by Dr. James Mercer and Dr. Charles Faust, GeoTrans, Inc. Parts III and IV taught by Thomas Prickett, Consulting Groundwater Hydrologist, and William Walton, Camp Dresser and McKee. Contact by 30 April: **Richard Hyde, Holcomb Research Institute, Butler University, Indianapolis, Indiana 46208. Telephone: 317-283-9555.**

CONFERENCES

COUNCIL OF BIOLOGY EDITORS (CBE)

The Silver Anniversary Conference of the CBE will be held in Boston, Massachusetts, at the Copley Plaza Hotel from 26 to 29 April 1981. Allen L. Hammond, editor of *Science* 81, will deliver the keynote address, "Bridging the Distance between Science and Citizen."

Program sessions: Evolution of a Journal Article, Proliferation of Scientific Journals, Illustration and Design, Computers and Publications, Ethics in Scientific Publication, and Innovative Economics.

For additional information, contact: **Philip L. Altman, CBE Secretariat, 9650 Rockville Pike, Bethesda, Md. 20014. Telephone: 301-530-3313.**

THE NEW YORK ACADEMY OF SCIENCES CONFERENCE C-REACTIVE PROTEIN AND THE PLASMA PROTEIN RESPONSE TO TISSUE INJURY New York City, 21 to 23 September 1981

The conference is cochaired by Irving Kushner (Case Western Reserve University), John Volanakis (University of Alabama at Birmingham), and Henry Gewurz (Rush Medical School). C-reactive protein (CRP) is a plasma protein of hepatic origin whose rate of synthesis increases markedly following tissue injury and inflammation. A number of plasma proteins, the acute phase proteins, behave in a similar manner. Research on CRP and other acute phase proteins is progressing at an increasingly rapid pace. This conference will bring together investigators from a variety of fields to discuss the regulation of biosynthesis, structure, binding specificities, biologic properties, relevance to disease, and biologic significance of CRP and related proteins.

To supplement invited lectures, the organizing committee will accept suitable poster session presentations. The deadline for submission of abstracts is 1 June 1981. Send abstracts for poster sessions to: **Irving Kushner, M.D., Cleveland Metropolitan General Hospital, Cleveland, Ohio 44109.** The abstracts should include the name of the author(s), institution, and 100- to 200-word summary of the work to be presented in the poster.

Inquiries about details of the program and registration should be addressed to: **Conference Director, The New York Academy of Sciences, 2 East 63 Street, New York, N.Y. 10021.**

CONFERENCES

THE NEW YORK ACADEMY OF SCIENCES International Conference on PEROXISOMES and GLYOXYSOMES The Barbizon-Plaza Hotel, New York City 9 to 11 September 1981

The conference is cochaired by Paul B. Lazarow (The Rockefeller University, New York) and Helmut Kindl (Philipps-Universität, Marburg, FRG). Peroxisomes and glyoxysomes are widely distributed in nature and are involved in respiration, fatty acid β -oxidation, gluconeogenesis, alcohol metabolism, purine catabolism, and photorespiration.

The conference will feature multidisciplinary invited lectures and poster sessions devoted to the structure, functions, and biogenesis of these unique organelles, as well as to the effects on them of hypolipidemic drugs. Short summaries of the posters will be published together with the invited lectures as an *Annals of the New York Academy of Sciences*. Abstracts to be considered for the poster sessions should begin with title, author(s), and institution(s), be typed in a box 127 millimeters wide by 110 millimeters long, and be received by 1 May. Send copies of abstracts for poster sessions to both: **Dr. Paul Lazarow, The Rockefeller University, 1230 York Avenue, New York, N.Y. 10021, and Dr. Helmut Kindl, FB CHEMIE, Philipps-Universität, D-3550 Marburg, Federal Republic of Germany.**

Inquiries about details of the program and registration should be addressed to: **Conference Director, The New York Academy of Sciences, 2 East 63 Street, New York, N.Y. 10021.**

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Applications are invited for a 3-year postdoctoral appointment to clone mammalian DNA sequences specifying control regions, structural genes, and transforming genes and to test the expression and biological activity of the cloned sequences by the use of DNA transfection techniques and eukaryotic vector systems.

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Further information from: **Dr. M. Fried, telephone: 01 242 0200, extension 297.** Applications with curriculum vitae and names of two referees should be sent to: **Secretary, Imperial Cancer Research Fund, Lincoln's Inn Fields, London WC2, England, by 30 April 1981, quoting reference 50/81.**

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FELLOWSHIPS

IMPERIAL CANCER RESEARCH FUND RESEARCH FELLOWSHIPS

Applications are invited for the following 3-year pensionable postdoctoral fellowships:

1) In Dr. Brigid Hogan's laboratory at Mill Hill, London NW7, to work on the role of the extracellular matrix on the growth and differentiation of epithelial cells and embryonic tissues. Scientists with a background in biochemistry or protein chemistry, as well as cell biology, are encouraged to apply. Further information from: **Dr. B. Hogan, telephone: 01 959 3236. Reference MH.**

2) In the joint laboratories of tumour virology and viral leukaemogenesis at Lincoln's Inn Fields to apply recombinant DNA techniques to the study of virus-induced oncogenesis. Molecular cloning of RNA tumour viruses is being undertaken to investigate, by a combination of restriction enzyme analysis, DNA sequencing and DNA transfection, the structure and function of mutant and wild-type viral transforming genes, and their interaction with host cell sequences in which they integrate. Further information from: **Dr. John Wyke, telephone: 01 242 0200, extension 270. Reference TV.**

Salary scale: £6985 to £8845, plus London allowance of £967 a year (total pensionable pay: £7952 to £9812 a year), with entry point according to qualifications and experience.

Applications with curriculum vitae and names of two referees should be sent to: **Secretary, Imperial Cancer Research Fund, Lincoln's Inn Fields, London WC2, England, by 30 April 1981, quoting reference as above.**

POSTDOCTORAL FELLOWSHIP. Multidisciplinary project on molecular cloning of plasma proteins. Preference will be given to candidates with experience in protein biochemistry, immunochemistry, and/or blood coagulation. Position available immediately. M.D. or Ph.D. Send curriculum vitae, statement of research interests, and names of three referees to: **V. J. Marder, Hematology Unit, University of Rochester Medical Center, 601 Elmwood Avenue, Rochester, New York, 14642. An Equal Opportunity Employer, M/F.**

POSTDOCTORAL FELLOWSHIPS IN MICROBIOLOGY

The recently expanded Department of Immunology/Microbiology of Rush Medical College invites applications from qualified individuals interested in postdoctoral training in microbiology. Current research efforts include molecular and biological studies of multiple viruses, pathogenic mechanisms, and host-microbial interactions. Special programs also are available in clinical microbiology, since a comprehensive diagnostic laboratory is an integral component of the department. Please direct inquiries to:

**Henry Gewurz, M.D., Chairman
Department of Immunology/Microbiology
Rush Medical College
1753 West Congress Parkway
Chicago, Illinois 60612**

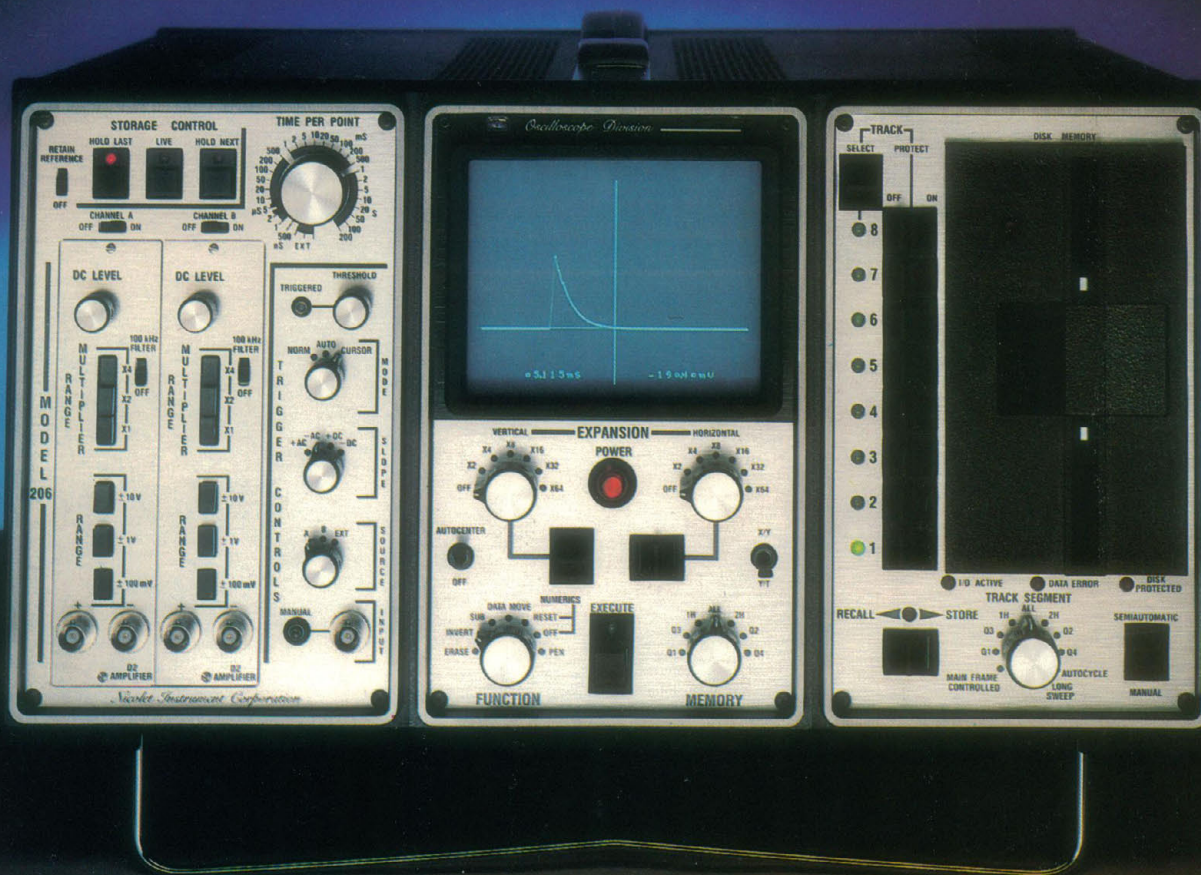
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AMINO ACID ANALYSES

The Cornell University Amino Acid Analysis and Protein Sequencing Facility is accepting requests for amino acid compositional analyses of acid hydrolyzed samples (pure proteins, peptides, protein mixtures, feed and tissue samples). The fee is \$50 per sample run, plus \$15 for sample preparation (optional). Typically, 10 to 50 micrograms of protein provide excellent results. For further information, write: **Director, Room 721 VRT, New York State College of Veterinary Medicine, Cornell University, Ithaca, N.Y. 14853.**

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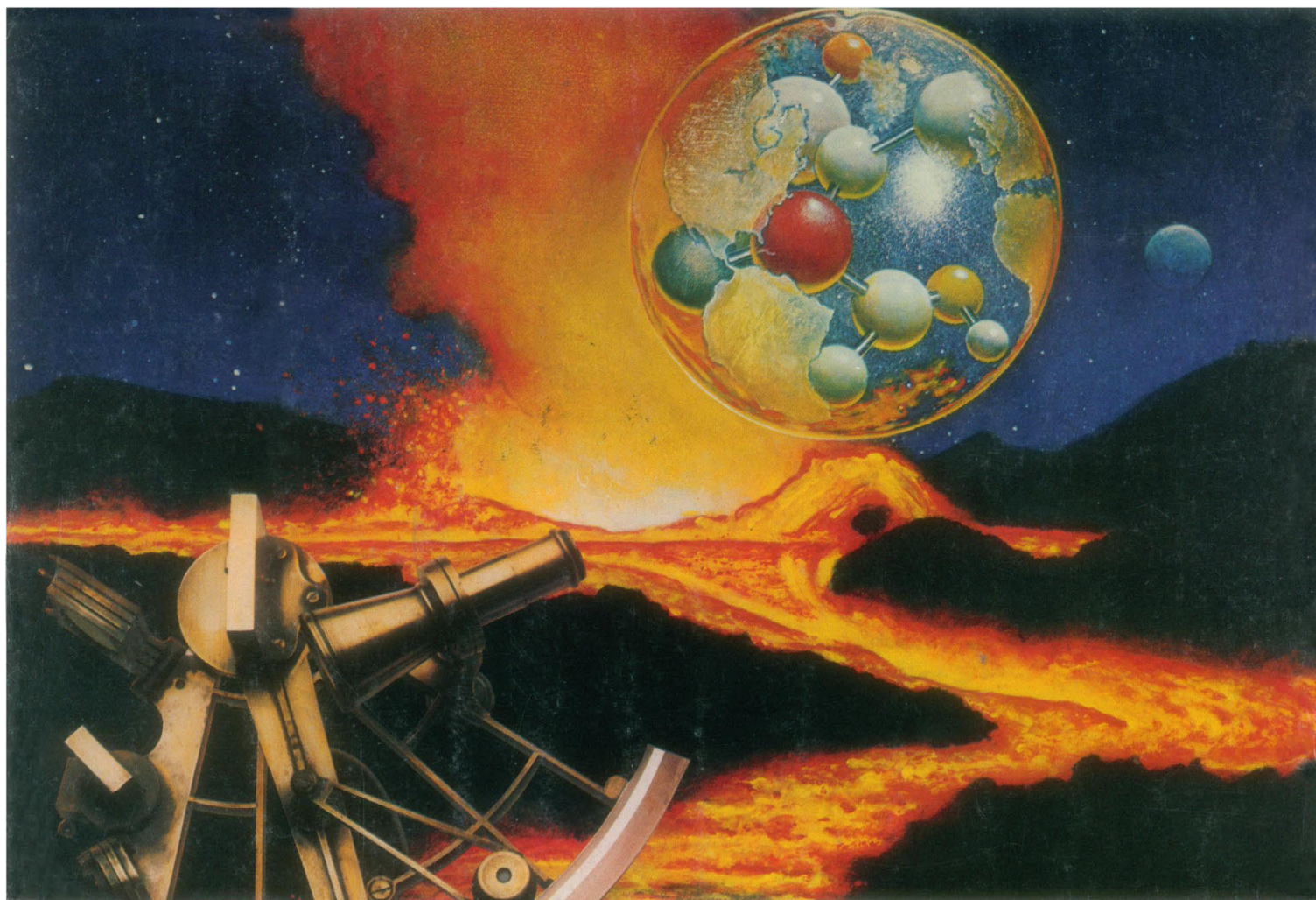
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